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1850--SPRINGFIELD, ILLINOIS--1900.

We extend you a most cordial invitation to be present at the Fiftieth Annual Meeting of the Illinois State Medical Society to be held in Springfield, May 15, 16 and 17th, in the Christian Church. This will be the Jubilee Meeting and the opening of a new era of Medical History in Illinois.

Fraternally,

E. P. Bartlett,
J. N. Dixon,
O. B. Babcock,
C. M. Bowcock,
B. B. Griffith,

Committee of Arrangements.

The Illinois Medical Journal.

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DISEASE OF THE PANCREAS.*

BY FRANKLIN E. WALLACE, M. D., MONMOUTH.
Ex-Interne St. Elizabeth Hospital, Chicago.

The infrequency with which post-mortem examinations are made, probably accounts for the apparent rarity of diseases of the pancreas. This organ belongs to the important system of secreting glands and I feel that their relationship to the human economy is but imperfectly known. We know that there is a bond of some extent, between these glands, through the sympathetic nervous system and the lymphatics, but is there not some bond existing which has control over the power, whereby one gland assumes a function laid down by another? Does such a power exist in the human organism, or is the function once destroyed, lost forever? Does the organism adjust itself to the loss of an organ through other organs, or does it live without this function being restored? There seems to be a close relationship between the pancreas and the central nervous system also, for microscopical examinations of the tissues of the pons, medulla and the cerebrum in some cases of pancreatic disease, shows colloid degeneration. "In diagnosticating affections of the pancreas, special stress should be laid upon incomplete digestion of fat and starches and the existence of diabetes and fatty stools, and for this reason the feces and urine are to be carefully examined. The urine also contains fat in some cases."[1] It is, therefore, essential to make a very careful examination of the feces and urine, in those cases in which we are undecided, as to diagnosis of pancreatic diseases.

Cyst. Cystic degeneration seems to be the most common disease of the pancreas. I take it, one reason for this, is because of the more conspicuous signs and symptoms present, making an early diagnosis of this condition easier, while the other cases go unrecognized. The history of a case sometimes gives us an insight into the diagnosis, for in the majority of cases of cyst, injury is given as the cause. In the reaction following an injury to any tissue there is always swelling and congestion in the parts injured. Following contusion of the pancreas therefore, we would expect these effects to follow and we have the essential conditions present for a cystic formation, viz, a closure of the duct, with retention of the secretions. The injury may be severe enough to set up permanent changes and through cicatrical contracture we get partial or total closure of the duct and the cyst becomes evident, by an increasing sized tumor. Cancer, calculi and abscess may all act as obstructions.

The diagnosis of cyst is not always an easy matter, and the statement is made that it has been correctly made in a minority of cases. The lack of all symptoms of local or general inflammation, its fluctuating character and its position, in the region of the pancreas, behind the stomach, are its chief diagnostic points. Some very high authorities advocate tapping through the abdominal wall with an exploratory needle, the contents withdrawn and examined, chemically and microscopically. The question naturally arises, is this a safe procedure? Being a retroperitoneal organ and lying as it does, behind the colon and stomach, a surgeon certainly adds danger to an already dangerous condition, for he runs a risk of puncturing either of these overlying organs, and is very apt to infect the peritoneum. Cyst of the pancreas must be diagnosed from ovarian cyst, hydrops of the gall bladder, hydro-nephrosis, hemorrhagic effusion, etc. I cannot take the time in this paper, to give the points of differential diag-

*Read before the Illinois State Medical Society, at Cairo, May 16, 1899.

nosis, nor to even mention all of the diseases of the pancreas, but I call your attention to the inflation of the colon as a valuable procedure in arriving at a diagnosis. "This is done by means of air, hydrogen or carbonic acid gas. In tumors of the pancreas, kidneys, and spleen, or in aneurisms, the inflated colon comes between them and the abdominal wall." "Tumors of the ovaries and the uterus enlarge from below upward, push the intestines to one side and are not covered with them."[2]

In summing up this disease the following conclusions have been arrived at: "1st, That contusions of the upper part of the abdomen may be followed by the development of a tumor in the epigastric, umbilical and left hypochondriac region. 2d, That such tumors may be due to fluid accumulations in the lesser peritoneal cavity. 3d, That when the contents of such tumors are found to have the property of rapidly converting starch into sugar, we may assume that the pancreas has been injured. 4th, That many such tumors have been regarded as true retention cysts of the pancreas and that this opinion has been formed upon insufficient evidence."[3]

Hemorrhage. Hemorrhages are divided into three classes. The most common form is passive hemorrhage, as a result of diseases of the heart, lungs or liver. The second class are those rare cases resulting from rupture of a large blood vessel, due to some change in the vessel walls.

The third class constitutes those cases in which the whole organ becomes hemorrhagic, the blood infiltrating the interstitial tissues, after which, disintegration of the whole organ occurs. "The first form of hemorrhage is unattended by special symptoms. In the second, a pulsating tumor may suddenly appear in the epigastrium and the ordinary indications of hemorrhage, —vomiting, fainting fits, cold extremities, feeble pulse, and general exhaustion,—are present. Death may occur suddenly or the patient may linger for months. In the third condition death usually occurs very suddenly, probably from pressure upon the sympathetic ganglia. There are no symptoms and the rapid termination prevents the development of general peritonitis, which would otherwise occur from the sloughing of the peritoneum. There are no indications for treatment."[4]

Acute Suppuration. Next to acute hemorrhage, the most rapidly fatal disease of this organ is acute suppuration. Pain may be sudden and severe, nausea and vomiting as a rule persistent, fecal vomiting occurs in a large number of cases, tenderness more or less constant, great prostration, pulse rapid and weak, temperature may be normal, subnormal or but slightly elevated, constipation and tympany generally present, tumor rare, jaundice may or may not develop. The septic infection arises through traumatisms, ulcers of the intestines, stomach, or bile tract, from peripancreatic abscesses, or it may take place primarily, through the blood or lymph channels. In exceptionally rare cases it runs into a chronic condition. Nature is very kind and may protect herself, if she has time enough, to build up a wall. The offending material may be discharged through the bowel or stomach and recovery take place. In most cases the microbic invasion is so rapid that nature is overpowered and death is the result. In other cases, abcesses have formed in the lumbar region and recovery brought about by simple incision and drainage. This condition must be diagnosed from intestinal obstruction, abscess of the liver, gangrenous cholecystitis, empyema of gall bladder, perforative ulcer of stomach or bowel. The following case which came under my observation while on the house staff of St. Elizabeth Hospital, Chicago, serves as a type of this disease. It has already been placed on record, as I presented the history of the case and showed a specimen of the omentum, presenting fat necrosis, before the Chicago Pathological Society in 1896.

Case History. Mrs. F., aged 26, Irish, housewife, was admitted to St. Elizabeth Hospital October 26th, 1896, as a private patient. Family history negative, mother

of two children, one miscarriage, has always been well up to two years ago when she had pain in epigastrium, with slight icterus, made good recovery. Since that time has had three or four such attacks. Her present history is of five weeks standing. Was taken with pain in region of gall bladder, nausea, vomiting and fever. These symptoms continued more or less severely for three weeks and then gradually abated under treatment. For the next ten days was considerably better, but five days ago was taken with the former symptoms. She was admitted to the hospital for an operation, a probable diagnosis of gall stones having been made. On admittance her condition was found as follows: Able to walk, restless, face flushed, hurried respiration, pulse 114, temperature 100.4, pain in epigastrium, nausea and vomiting, tongue slightly coated, tenderness over abdomen, rapid heart action and pulsations strong, constipated and urine scant. Liver, lungs and spleen normal. Urinalysis showed biliary coloring matter and 1/5 by bulk, of albumin. Postponement of the operation was advised by her physician. Medicines to relieve her incessant vomiting were in vain, and anything taken into the stomach was immediately rejected. Her condition remained about the same for next two days. The urine became more scant and enemas did not relieve the bowels. October 28th. Voided but 16 ounces of urine the past 24 hours, more restless and anxious looking, seems weaker, slight fecal movement, vomiting still continuous. Temperature same as on admittance. October 29th. Heart weaker, fecal vomiting, previous symptoms unabating, semi-delirious and extremely restless. At 7 P. M. passed into coma and died at 11 P. M.

Post Mortem. The autopsy was held by Dr. E. R. Lecount, attending pathologist, assisted by the writer, and it showed an intensely interesting state of affairs. A brief synopsis of the postmortem findings, is as follows. The heart and lungs were normal to a casual examination, the spleen was small, the gall bladder small and contracted from connective tissue bands in the walls, gall stones were numerous, acute parenchymatous nephritis was found in both kidneys, body and tail of the pancreas consisted of simply shreds of necrotic tissue, extending across and lying free in a cavity, possessing for walls, the stomach, retroperitoneal, and peri-renal adipose tissue, the transverse mesentery, duodenum, and tissue of lesser omental cavity, as well as some loops of small intestines and colon. The walls of this cavity were necrotic, dark grey and slaty in color. The cavity communicated with the stomach and bowels through perforations, and contained fecal matter. The head of the pancreas was the least involved. We found disseminated fat necrosis throughout the omentum, mesentery and fatty tissue. This necrosis of Balsar may be found in the interlobular pancreatic tissue and in the abdominal fatty tissue generally. It consists of small, opaque, yellowish white spots, from pin head size to that of a split pea, distributed more or less thickly throughout the tissues involved. In this case these areas could be plainly seen in the omentum, when held up to the light. I examined the contents of these areas under the microscope and fat crystals were easily visible.

Cancer. Primary cancer of this organ is a most insidious disease, developing gradually and without much pain. Patients are usually past middle life. Temperature is generally subnormal, may later in the disease have a tumor, and like cancer of any part of the body, may have cachexia and emaciation. It is accompanied by various digestive disturbances,liver small and hard, jaundice sets in gradually and once present it never disappears. With the accumulation of bile in the gall bladder, a tumor can ofttimes be made out and might lead one to a diagnosis of cholelithiasis, therefore, I should say, if we have a case presenting jaundice, with or without pain or a tumor, in a person past middle life, and it cannot be relieved by active medication in a few days, operate. One diagnostic point is, that cancer of the pancreas nearly al-

ways produces jaundice because of the frequency with which the head is involved, while cancer of the liver rarely does, for its growth generally occurs in parts of the liver distant from the gall duct.

Surgery. It is only within the past few years that any systematic effort at investigating the surgery of this organ has been attempted. Billroth, Kocher, Gould and others have placed cases of interest on record, but a great deal of the honor of placing surgery of the pancreas upon a solid footing belongs to Senn. He has made extensive experimental investigations, has collected illustrative cases and placed them on record. Although the results of laparotomy, so far have not been encouraging, I think it apparent that only through an early diagnosis and operative procedure can we hope to decrease the big per centage of mortality from diseases of this organ. Several cases are on record in which the pancreas has been removed entire and its function apparently taken up by other organs, however in some cases, more or less imperfectly, for glycosuria has been noted. There are some authors who claim that total extirpation of the pancreas is invariably followed by diabetes and there probably are an equal number who deny this, but it is true nevertheless, that in a majority of cases this operation is followed by glycosuria. Complete removal may easily prove fatal, so it should be avoided if possible. I advocate an exploratory incision and after a thorough investigation, a decision can be reached as to the best method of procedure. With our advanced knowledge of antiseptics and improved methods of operating we certainly are justifiable in making an exploratory incision for diagnosis. If an obstruction should be present from gallstones, stricture and the like, we are in a position to remedy it. If found to be cancer an operation may be indicated, depending on the involvement. Should our examination reveal a cyst or abscess without involvement of the peritoneum, then a posterior incision below the twelfth rib should be made, the tumor pushed backward, incised and drained and the anterior incision closed. I favor this route, because, 1st, It permits of better drainage; 2d, We run no risk of infecting the peritoneal cavity with the tumor contents; 3d, "The permanent adhesions of the left end of the pancreas to the abdominal wall, in this situation, is less likely to lead to subsequent mischief than is an anterior adhesion between the stomach and transverse colon."[5]

The cure of cancer of the breast by the administration of thyreoid extract is reported and we know of the favorable results in other diseases from its use. We know, also, of favorable results from the administration of extracts and secretions of other glands. If, as I have suggested, there is a peculiar relationship existing between all glands, is it unreasonable to expect that in diseases of the pancreas or other glands, we might not have a beneficial effect, by giving the combined extract or secretions from all the glands?

1. Tillman's Surgery, 1898 edition.
2. Ziemssen Cyclopedia.
3. Osler, "Diagnosis of Abdominal Tumors."
4. Pepper, "System of Medicine."
5. Robson, Medical Annual, 1892.

THE ALKALINITY OF THE BLOOD IN ITS PHYSIOLOGIC AND PATHOLOGIC RELATIONS.*

BY J. H. SALISBURY, A. M., M. D.
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The reaction of the blood has been the subject of much investigation by physiologists, and has lately attracted the attention of pathologists as serving, perhaps, to explain some of the phenomena of disease. Especially has the idea been advanced that the alkaline reaction of the blood is closely connected with the means by which the system defends itself against infection by micro-organisms.

No originality of research is claimed for the present paper which simply aims to put before its readers the results so far achieved by investigators, and to draw some practical conclusions from them.

*Read by title at the Cairo Meeting, May, 1899.

Although physicians occasionally speak of the blood becoming acid, it is the universal result of experiment that the blood reacts continuously alkaline to litmus in health and in all cases of disease investigated, except cholera and diabetic coma.

It must be remembered, however, that while the reaction to litmus is alkaline, it contains salts which are of acid constitution, such as the bicarbonates and mono-hydrogen phosphates so that its chemical effect may be that of an acid. The blood has, therefore, a power to absorb bases as well as acids and this power is sometimes spoken of as its acidity. This may be of great importance in accounting for the solution of substances otherwise insoluble; such as the calcium phosphates of bones in cases of rickets and osteomalacia and in making possible the separation of acid secretions like the gastric juice and urine from an alkaline fluid.

The reaction of the blood is measured by the quantity of sodium hydroxid which will be neutralized by 100 c. c. of the blood serum.

The average amount may be stated at 0.300 gm. Na. OH. for 100 c. c. of the blood serum. (Strauss[1].)

We will not enter here into a description of the methods used by various investigators, but will call attention to the difference in results obtained by those who examined the colored blood when first drawn, and those of others who break up the corpuscles by the use of the centrifuge and then determine the alkalinity of the clear serum. Blood treated in the latter manner is said to be laked. The earlier observers determining the alkalinity of the blood when first drawn, found a comparatively low average. Thus the following may be cited:

Lepine[2] 0.203; Conrad[3] 0.276; Krauss[4] 0.226; Rumpff[5] 0.182 to 0.218; Von Limbeck[6] 0.218; Von Jaksch[7] 0.260 to 0.300.

By using laked blood, Berend[8] found 0.450; Lowy[9] 0.497; Strauss .300 to .350. Strauss concludes that a variation of 0.075 is within normal limits.

The earlier observers found a marked reduction of alkalinity on standing but the later observers have not found this to be the case. Berend found that the alkaline reaction is likely to return after the blood has stood some time, because the alkali present in the corpuscles is only slowly given up by them. There is also reason to believe that the acid used in titration may break up certain organic compounds present in the blood, separating and combining with the alkali. Thus a portion of the alkali estimated may proceed from compounds which would not be properly reckoned as alkaline in their action in the system.

Whether we should understand by the degree of alkalinity, the amount of acid that can be neutralized by the serum without the corpuscles, or whether the latter should be included seems to be an important question. As far as clinical relations are concerned, we cannot suppose that the alkali present in the corpuscles is capable of exerting the influence which we are inclined to attribute to the alkali of the blood. The corpuscles do not pass outside of the blood vessels, and their alkaline reaction can have little influence upon the tissues. It seems, therefore, that the factor of the alkalinity due to the composition of the corpuscles should be excluded from consideration and looked upon merely as potential alkalinity. If we make this reservation, we may, perhaps, accept the figure given by Schafer[10] as expressing the average alkalinity of human blood, viz., 0.200. Observations upon other animals have given about the same figures, and have shown that the blood of carnivora is slightly more alkaline than that of herbivora. Lassar[11] found in French rabbits .212, in cats .241. Some authors make a distinction between the diffusible alkali found in the serum and the non-diffusible present in the corpuscles. The capacity for bases is greatest in the serum, and that for acids in the corpuscles. (Spiro.)

According to the investigations of Strauss, there are no marked variations in the same individual either from the time of day, or from day to day. Digestion seems

to have no particular influence. Other observers using older methods have found different results. Jeffries[12] found a rise from morning till dinner time and after dinner a fall. Dronin[13], Conrad, Baldi, Sticker and Hubner hold that the alkalinity of the blood is increased at the height of digestion. Schafer states that it increases during digestion.

It is diminished during muscular work upon a diet deficient in proteids, but when the diet is rich in proteids the influence of work is not manifest.

Burchhardt and Minkowski[14] found in rabbits after tetanizing, as by strychnine poisoning, a marked reduction of the CO. 2 of the blood. Cohnstein[15] confirmed this for rabbits but he found in dogs a regulating mechanism that prevented an excessive reduction of blood-alkalinity. By the administration of food containing little nitrogen he found that the alkalinity of the dog's blood could be reduced by muscular work to a certain degree. But the organism of the dog was able to resist farther influence of work and maintain its blood at this minimum degree of alkalinity. Cohnstein found what Dronin had previously noticed; that in these cases the reaction of the serum of the blood was greatly lowered while the action of the whole blood remained about the same as in a state of rest.

The cause of the blood alkalinity is twofold: Inorganic alkali and organic alkaline substances, derived from proteids. The inorganic alkali is the carbonate and bicarbonate of potassium and sodium, and the di-sodium-hydrogen phosphate. The bicarbonates and the phosphates while alkaline to litmus, are neutral to other indicators such as phenol-phthallein. The bicarbonate loses much of its carbon dioxide in passing through the lungs and thus undergoes a partial conversion into carbonate. As a result of this change, arterial blood is more alkaline than the venous blood. That part of the alkalinity of the blood is due to the presence of an organic substance of alkaline reaction is shown by the fact that in some instances the alkalinity is higher than can be accounted for by the total quantity of bases found in the ash. A portion of these bases is undoubtedly present in the blood in the form of neutral salts, so that a considerable portion of the alkalinity must be due to organic substances. That these substances are derived from proteids is probable from the fact that organic alkalies are nitrogenous in character and must be derived from nitrogenous food. It is further shown by the fact that a diet rich in proteids prevents the diminution of the alkalinity of the blood by excessive muscular exertion. What these substances are, is at present unknown.

This organic alkali appears to be largely contained in the corpuscles. By saturating the blood with carbon dioxid, this alkili can be withdrawn from the corpuscles so that they become less alkaline while the serum becomes more alkaline. Probably other influences can change the relation of the corpuscles and serum.

The alkaline reaction of the human blood is maintained in spite of the constant entrance into the blood of acids, either taken as food or generated by fermentation in the intestines or produced as the result of the metabolism in the various tissues.

Acids or substances acid in reaction, form a large part of the diet of the human race. In addition to this we have a frequent source of acid in the fermentations that occur during the digestion of starchy and saccharine food. Acids are also constantly formed by the oxidation of food more particularly the carbonhydrates. The action of the muscles produces carbonic and lactic acids. All these acids on entering the blood tend to reduce its alkalinity and if this tendency were not counteracted the reaction of the blood would soon become neutral or even acid. The mechanism by which the reaction of the blood is regulated and its alkalinity maintained is of the greatest interest and practical importance to the physician.

Three tissues assist in the removal of acid from the blood, viz: the skin, the lungs, and the kidneys. Of these the kidneys are by far the most important as a regulating mechanism.

The reaction of the perspiration is constantly acid and by it a considerable amount of acid is removed from the blood. The lungs also give off carbon dioxid which is produced by the oxidation of substances having a more pronounced acid reaction and therefore respiration serves to remove a certain amount of acid from the blood. The kidneys, however, constitute the most sensitive part of the mechanism for regulating the reaction of the blood. The reaction of the urine responds rapidly to the influence of acids either ingested or formed within the organism. The ingestion of acid is followed in a short time by the secretion of a more acid urine while the ingestion of alkali is followed in from half an hour to two hours by the excretion of less acid or alkaline urine.

This compensation is mainly secured by the excretion of acid sodium phosphate, which is produced by a reaction between sodium bicarbonate and disodium hydrogen phosphate, which results in the passage of the acid phosphate into the urine and the retention of the more alkaline sodium carbonate in the blood. This reaction results in the removal of both sodium and phosphoric acid from the system, and, unless a source of supply is provided, may lead to serious impoverishment of the blood. That the administration of acids leads to the removal of alkali from the system has been shown by Salkowski[16]. This is marked in the herbivora but occurs to a less extent in the carnivora. This is largely due to the fact that herbivora find in their food an abundant source of alkaline salts. Acids entering the system may also be neutralized by ammonia derived from proteid food and excreted as ammonium salts. This method of regulation comes into use more particularly in pathologic conditions, as in fevers and is more efficient in the carnivora than in the herbivora.

Herbivorous animals show a greater variability in the degree of alkalinity of the blood than the carnivora. This is due to the fact that the carnivora are able to guard against the effect of the introduction of acids by combining them with ammonia, which they derive from the metabolism of proteids. The herbivora are unable to do this as perfectly as the carnivora, and consequently when organic acids are administered to them the alkalinity of their blood diminishes, and they succumb readily to acid poisoning.

T. A. Fodera and M. Ragona[17] found that feeding rabbits upon bran, which produced an acid urine, reduced the alkalinity of the blood. Prolonged hunger produced a slight reduction in dogs. In rabbits, acids either per os or subcutaneously reduced the alkalinity while alkalies increased it. In dogs, however, under the same treatment, the reaction remained constant. In asphyxis quickly induced, there was no change, but when slowly produced the alkalinity of the blood increased.

Kraus claimed that destruction of red blood cells decreased alkalinity, but Fodera and Ragona found that in rabbits pyrogallol produced a slight reduction, but in dogs, none of the agents used (glycerin, ether, pyrogallol) produced any change. No relation was found between destruction of red corpuscles and the reaction of the blood.

It has been claimed that the herbivora are destitue of the power to neutralize acids by ammonia, but Dr. Winterberg[18] as the result of recent investigation, comes to this conclusion:

Herbivora, as well as carnivora, possess ammonia which neutralizes acids. There is a quantitative difference in favor of the carnivora, but in principle, the chemical organization of both classes is the same. The herbivora stand in the position of carnivora receiving large doses of vegetable salts. Their minimal excretion of ammonia corresponds to the remains of ammoniacal salts not converted into urea. In this respect man resembles the carnivora.

Strauss suggests that the liver is the organ which is active in securing the neutralization of acids and also effects the storing of alkalies, when they are given to an undue extent. This is in accordance with what we know of the formation of urea (from which ammonia may easily be derived), and is borne out by the effect of dis-

eases of the liver on the alkalinity of the blood.

The pathological relations of the alkalinity of the blood are of very great importance and have been the subject of much investigation. Here we find marked differences between the results of earlier observers using the blood freshly drawn and those obtained by later observers using laked blood.

Conrad (1878) found the alkalinity of the blood lessened in chronic rheumatism, in diabetes, and in anemia. Cantani (1884) found blood in the last stages of cholera greatly reduced in alkalinity, and in some cases even acid. Von Jaksch (1887) found in fevers a constant reduction of alkalinity. In nervous diseases and in diseases of the heart and blood vessels without fever, he found the alkalinity generally increased. In kidney diseases without uremia there was no special change. In uremia there was a very marked reduction. In cancer and in diseases of the liver in which there was destruction of the liver tissues the reduction was marked. In chronic rheumatism, he found no diminution of alkalinity.

Kraus (1890) examined the blood with reference to its capacity for carbon dioxid, and found that without reference to the various character of the infection a notable diminution of the capacity for carbon dioxid of the venous blood occurs in men affected with fever.

This occurs with varying rapidity after the infection, and is parallel to the height of the fever, and the capacity for carbon dioxid returns to normal, soon after defervescence.

Antipyretic agents do not immediately cause this restoration to normal.

The diminution in the capacity for carbon dioxid is an expression of the diminution in the alkalinity of the blood. This was found by direct titration.

On the other hand, Strauss (1896) found in fevers, either no change or an increase in alkalinity: In no case was there a marked reduction. In new growths in blood diseases, and in diabetes the same result was obtained. Similar conclusions have been reached by Berand, Von Limbeck and others.

The contradiction between these results and those of older observers is very striking and suggests the possiblity that by laking the blood a factor is introduced which has no influence on the course of disease, and which therefore should be disregarded in considering the pathological relations of blood alkalinity.

Whether we regard the effects of the blood upon bacteria or upon the toxins, we must attribute those effects to substances dissolved in the blood serum, and not to matters imbedded in the corpuscles.

It would seem, therefore, that a method of estimating alkalinity that gives the best estimate of the alkalinity of the serum as it circulates in the vessels would give us the best idea of the efficient alkalinity of the blood. We may, therefore, admit that the later researches excel in scientific accuracy but we must believe that the former observations were expressions of facts which ought not to be disregarded.

In 1889 Peiper[19] read an article in which he stated that he found alkalinity greater in adults than children, in men than in women and found great reduction in diabetes, in uremia, leukemia, and generally in fevers. In the discussion of this paper, Lœffler[20] stated that rats were rendered more resistant to anthrax by a meat diet, and cited an experiment to illustrate this fact. He took two sets of rats of equal weight and fed one set on meat and the other on bread and water. When they had become thoroughly accustomed to their diet the rats were infected with anthrax. Six, out of eight, that were fed on bread died, but of those fed on meat, one only, out of eight succumbed to the disease. Lœffler raised the question whether the meat diet increased the alkalinity of the blood and rendered the animals more resistant to the disease.

Von Fedor[21] in an investigation of the bactericidal power of the blood serum demonstrated that arterial blood has greater germicidal power than venous blood; that

fresh blood is more effective than after standing. The bactericidal power was less in an atmosphere of oxygen or of carbon dioxide.

Blood of animals poisoned by carbon monoxid lost its power to kill bacteria. The bactericidal power was found to be greatest at a temperature of 38° to 40° C. These results evidently pointed to a connection between the alkaline reaction of the blood and its bactericidal power. This was confirmed by experiments in which it was shown that addition of alkalies increased this action of the blood serum. Sodium and potassium carbonates have a marked effect. Sodium bicarbonate and sodium phosphate considerably, and ammonium carbonate slightly increase the power of the blood to destroy or inhibit the action of bacteria.

Experiments upon rabbits showed that animals which received an injection of cultures of anthrax bacilli without treatment died soon after the injection while those which received injections of sodium carbonate in addition to the cultures either recovered or succumbed to the disease much later than untreated ones, and some of them showed no bacilli in the blood or tissues.

Behring and Schor[22] repeated Fodor's experiments but without favorable results. Fodor[23] admits that he has not always obtained so favorable results. He found that on administering sodium bicarbonate to rabbits the alkalinity increased and the increase lasted from 24 to 48 hours.

The alkalinity of the blood in rabbits rises after infection with anthrax and then falls in proportion to the virulence of the infection. Rabbits whose blood is more alkaline resist infection better than those whose blood is less alkaline. Similar results were obtained with cholera bacilli, typhoid, tuberculosis and erysipelas.

M. Calabrese[25] of Naples, confirmed the results of Von Fodor and in 1895 gave the following account of his observations:

"I have immunized animals either with attenuated cultures or virulent cultures, or with bacterial or vegetable toxins and have determined the alkalinity of the blood by a very exact quantitative method. I have always found that alkalinity increases in proportion to the degree of immunization and reaches its maximum when the animal has become completely refractory. The immunized animal reacts against infection by a moderate but persistent increase in alkalinity of the blood, while normal animals show at first an increase of alkalinity more or less intense, followed by diminution in the alkalinity in the hours preceding death."

A. Cantani[24] (1896) concludes as the result of his experiments with diphtheria, as follows: Animals treated with diphtheria antitoxin, show an increase in the alkalinity of the blood. This increase (in rabbits) occurs not earlier than two hours after the injection, reaches its height from 10 to 20 hours, and then slowly falls, reaching the normal after three days.

The increase in alkalinity is also noticed in animals which have been treated with antitoxin and afterwards received a fatal dose of toxin, while in those which have not been immunized the alkalinity of the blood is reduced.

Von Fodor and Rigler[26] in 1897 published further research showing the effects of vaccines and antitoxins upon the alkalinity of the blood. They experimented with a vaccine against anthrax, with antirabic vaccine, with diphtheria antitoxin and antitubercular serum. The alkalinity increases after injection with the vaccine against anthrax, but the increase is only to a certain extent parallel to the amount of vaccine used. With a very large amount the alkalinity diminishes again. The alkalinity is due to some vital action of the system and not to the injected vaccine. Rabbits injected with rabies died and the alkalinity fell steadily until death. Rabbits which were injected with the protective vaccine and then with the virus of rabies died after twelve days with slight diminution of the alkalinity. Injections of antitoxin raise it as in the case of vaccine, but in the case of vaccine the increase is permanent, while in the cases of an antitoxin it is only temporary. When injected at the same time as toxin the antitoxin pre-

vents the decrease of a alkalinity by the toxin and the power of resistance of the animal runs parallel to the increase in alkalinity. Animals previously treated, die with lowered blood alkalinity as if no antitoxin had been given, in marked contrast to their behavior when vaccinated against anthrax.

The cause of these variations in alkalinity seems to lie in an organic substance contained in the coagulable portion of the blood serum. The increase in alkalinity in immunization, or in treatment with antitoxin is brought about by an organic substance which increases as the result of immunization, or treatment with antitoxin, and decreases as the result of infection or the injection of toxins.

Löwy and Richter[27] experimented upon rabbits with injections of spermine, peptone, hemialbumose and diphtheria antitoxin. These experiments showed usually after the injection, a rise of alkalinity with diminution in the number of leucocytes, followed by an increase in the number of leucocytes and a return of the alkalinity to its normal grade. Pilocarpin gave exceptional results, in that the number of leucocytes was first decreased and then increased without any marked change in alkalinity. By refrigeration the number of leucocytes was diminished and the alkalinity of the blood at the same time reduced. When the same injections were made in dogs, no change in blood alkalinity was noticed, although an increase in number of leucocytes followed.

Caro[28] in an investigation upon leucocytosis concludes that after injections of spermin, tuberculin, and pilocarpin, there occur slight and temporary changes in the alkalinity of the blood, usually an increase of short duration and a subsequent decrease. These variations are so temporary and so uncertain that they cannot be regarded as of any therapeutic significance. He finds that a constant relation between the alkalinity of the blood and the number of white blood cells which Löwy and Richter found for rabbits does not exist in man.

Neuman found that the power of animals to resist infection was lessened by the artificial lowering of the alkalinity of the blood.

The substances which raise the alkalinity of the blood increase the power of animals to resist pneumonia and other infections. This is especially the case with spermine.

Strasser[33] found that cold baths increased the alkalinity of the blood.

Thomas[32] finds the alkalinity of the blood reduced in acute alcoholism, and in chloroform narcosis but finds no change in chronic alcoholism, nor in poisoning by chloral, morphine or ether.

The methods of determining the alkalinity of the blood depend upon direct titration or upon some indirect determination such as the estimation of the capacity of the blood for carbon dioxid. This method has been much used in experimental work but it has been shown by Lehmann[29] that its results do not agree precisely with those of titration. By the formation of bicarbonates it is apt to show too high a degree of alkalinity in the blood serum, while it does not affect substances in the corpuscles that are decomposed by the other acids, and hence gives a lower degree of alkalinity for the corpuscles than the titration methods.

The titration method of Landois which has been used in some of its modifications by most of the earlier observers consisted in mixing the blood as soon as drawn with a solution containing sodium sulphate to prevent coagulation; to the solution of sodium sulphate was added tartaric acid in varying proportion until a mixture was found that with the blood gave a red color with very delicate litmus paper.

Löwy's method consists in dissolving the corpuscles by some method; as by the use of glycerine or breaking them up with the centrifuge and determining the alkalinity of the clear serum.

Berend has introduced a method by which the corpuscles are separated from the serum; and a separate estimation of the alkalinity of the serum and the alkalinity of the corpuscles made. He adds excess of acids and then titrates back with dilute

standard alkali, using litmus as an indicator.

There is no doubt that these methods are open to some objection for several reasons.

The choice of indicator is of great importance. Litmus is affected by carbon dioxid and hence the neutral point is reached too soon unless the gas is allowed to escape or expelled by heat. The use of lacmoid gives better results because it is not affected by carbon dioxid. Titrations are not capable of comparison unless the same indicator be used.

Excess of acid leads to fallacies because acids seem capable of separating alkali from neutral substances in the blood and combining with it. Moreover, Spiro and Pemsel[30] have shown that when excess of acid is used some of the acid is precipitated along with albumen and thus too high a degree of alkalinity is obtained.

The best results were obtained by these investigators by mixing the blood with water saturated with ether and precipitating with a saturated solution of ammonium sulphate. The clear filtrate was then titrated directly, using lacmoid as indicator. A similar method has been used by Kraus.

Salkowski has proposed a new method as follows: 20 Gm. of neutral ammonium sulphate are rubbed fine and introduced with the aid of 20 c. c. of water into the glass bulb of Schlössings' apparatus. A measured quantity of blood 10 to 25 c. c. are then added, and in the acid bulb of the apparatus 10 c. c. of decinormal acid are put. The apparatus is allowed to stand five or six days until the alkalies of the blood have expelled their equivalent of ammonia from the ammonium sulphate. The acid in the bulb is then titrated with decinormal alkali. Treated in this way pig's blood gave an alkalinity of 0.252 Na. OH. Rabbit's blood gave 0.214.

These methods of direct titration of the blood are so difficult of execution that they cannot be expected to come into practical use by the physicians.

The determination of the acidity of the urine may afford valuable indications although too much reliance must not be placed upon it. The kidney by separating acid restores the proper degree of alkalinity of the blood. A very acid urine does not necessarily mean a diminished alkalinity of the blood but indicates an unusual introduction of acid from some source. The acidity of the urine becomes therefore a measure of the effort which the system is making to prevent reduction of the alkalinity of the blood rather than an indication of the success of that effort.

The presence of ammonium salts in the urine is another indication of the struggle going on in the system to prevent the reduction of alkalinity and preserve the alkalies of the system.

The influence of alkalies in promoting oxidation renders plausible the theory that reduced alkalinity is a factor in the causation of diseases that are characterized by diminished oxidation and reduced vitality of the tissues. These diseases show various phases of faulty metabolism. Among such diseases may be mentioned gout, chronic rheumatism, diabetes. In diabetes for instance, the tissues seem unable to use the food material presented to them in consequence of an imperfect power of oxidation, and so sugar, urea, etc., are execreted unoxidized while the tissues suffer for want of nutriment. It is very probable that the deficient alkalinity of the blood contributes to this abnormal phenomenon.

Kraus states that if to a healthy man 10 to 20 Gm. of sodium bicarbonate are given, his urine becomes alkaline after from one half hour to an hour; but if to a diabetic patient as much as 100 Gm. of the same salts are given, the urine will remain acid.

Some authors attribute diabetic coma not to acetone, diacetic acid or oxybutyric acid, but to the diminished alkalinity of the blood.

It may be remarked that even though the blood maintains a due degree of alkaline reaction the intercellular fluids of the tissues may have a much lower degree of alkalinity, and so contribute to a greater extent to the production of morbid prenomena.

The following conclusions, may, I think, be sustained by our present knowledge:

The reaction of human blood is constantly alkaline.

The alkaline reaction is due partly to inorganic alkalies and partly to substances of organic nature which are probably derived from the proteid food.

The regulation of the reaction of the blood is due to the action of the kidneys and probably of the liver.

The alkaline reaction of the blood is reduced in various diseases—uremia, diabetes. In infections it is lowered in proportion to the virulence of the infection, but increases with the recovery of the organism and in immune animals is above the normal.

In the treatment of diseases, causes of acid reaction should be avoided, particularly in infections. Thus the action of the skin and kidneys should be favored, and the production of acids by fermentation in the intestinal canal should be prevented.

The administration of alkalies in moderation is useful, but cannot be expected to increase the alkalinity of the blood to a high degree.

This is due to the fact that the inorganic alkalies are either temporarily stored in the liver or rapidly excreted by the kidneys.

The increase of alkalinity in cases of recovery from infections is probably not the cause of recovery, but is due to the production in the blood of a curative substance which is alkaline in reaction.

This substance is a nitrogenous organic compound, and is derived from the proteids. A meat diet, would seem, therefore, especially suited to patients suffering from infection. It may be the case that nitrogenous constituents of beef tea (although not proteid) are capable of furnishing the material from which such an alkaline protective agent can be produced.

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INJURIES OF THE SCALP.

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The peculiar anatomical structure of the scalp, the free gliding over each other of the skin, fascia, areolar tissue and muscular

aponeurosis, its normal oily condition, its hairy covering and its usual state of uncleanliness, render its injuries of such a nature as to require consideration separate from that of other wounds.

Scalp wounds may be either contused, contused and lacerated, incised or punctured. Contused wounds of the scalp, though of frequent occurrence, are of little surgical importance. The free vascular supply, together with the very loose and open areolar tissue and the bony background render the effects of these contusions more immediate and of greater extent than elsewhere. Within the time of two or three minutes great tumefaction may occur. Persons are often frightened at the rapid forming of large knots upon the scalp following comparatively slight blows. These lumps often present a feeling of fluctuation, but when cut down upon no free fluid will escape. The entire swelling will be found due to the injection of the areolar tissue. The skin may even be diminished in thickness. In some instances the swelling will be found circular in form and depressed in the center like an air cushion, due to the spreading in all directions of the areolar tissue from the point of contusion. The contused wounds when not attended by laceration or fracture, will soon be recovered from without treatment, but some of the cooling applications are often grateful and helpful.

Contused and lacerated wounds of the scalp are the most frequent in occurrence, the most grave in character and the most difficult in treatment. In railroad surgery they are practically the only kind met with. They are caused chiefly by falls from cars, by low bridges, by getting off cars while in too rapid motion, or by being struck by cars and knocked down, the head striking upon the cinder or gravel roadbed, a tie or some other object. These wounds are sometimes very extensive in character amounting to the scalping of half the cranium and are often seriously complicated by the cinders, dirt, splinters, etc., with which they are frequently filled. In some cases the bone is found to be fractured, especially about the orbits and numerous spiculæ driven into the surrounding tissues. Considerable time often elapses before treatment is had which lessens the healing power of the uprooted fragment of scalp and increases the risk of infection. And the location of these wounds being beyond the view of the patient, they are often examined with his fingers which also increases the liability to infection.

Incised wounds are of the simplest nature. They usually heal by the first intention. If the parts are frequently coaptated there is "immediate" union, that is, union without intervening plasma, and almost immediate with regard to time, as two or three hours are often sufficient for the lips of a scalp wound to become quite firmly adherent. The risk of infection in these cases arises from the uncleanliness of the knives used and the driving of hairs into the wounds, but there is usually sufficient hemorrhage following to remove the danger from these sources.

Punctured wounds of the scalp differ from punctured wounds of other parts of the body on account of the tissues of the scalp gliding over each other and frequently shutting off the outlet. Thus serum or blood or pus may be penned up in the bottom of one of these wounds by having its means of escape cut off and serious consequences follow.

The complications which sometimes attend open wounds of the scalp are the following: Simple inflammation with healthy suppuration, simple infection, erysipelas infection, gangrene and a state of the wound which does not come under any of these heads and which is characterized by an absence of healing power. Though some of these wounds may escape inflammation to the extent of pus there are none which escape it altogether. In the great majority of them, and especially in those where the scalp is uplifted from the cranium and cinders and other dirt injected, suppurative inflammation is inevitable. But this pus has no surgical significance and is only an effort of nature to complete what the surgeon has left undone in the way of cleanli-

ness. The writer does not belong to that happy class of surgeons who have become so estranged from pus as to have forgotten its features.

A wound of the scalp, like that upon any other part of the body, may become infected, but the scalp wound for the reasons above stated, is the most liable to infection, both of the simple and erysipelas variety. It is considered fashionable to speak of infection as due to some fault in the technique of operation, dressing or after dressings, but such statements are often misleading and sometimes damaging especially when made in courts of justice. In accidental surgery there sometimes exists causes of infection which are unavoidable. The wound may become infected by foreign bodies containing germs being burried in the tissues entirely beyond the reach of discovery. In other cases the infecting germs enter the wound before it reaches the hands of the surgeon and take up their abode in nooks and corners, so hidden away that no antiseptic will reach them. Thus the worst forms of sepsis may occur without any fault whatever in technique.

Erysipelas infection, it is generally conceded, is more frequently met with in the wounds of the scalp than in those of any other part. This disease is readily distinguished from simple inflammation or simple infection by its chief site of attack being the skin, and by its specific manner of spreading. It has a special inclination to extend to the eyelids and to one or both sides of the face, and like cellulitis is attended with a rise of temperature preceded by a chill.

The retrograde action of scalp wounds is a complication sometimes met with. For many days or even weeks, the wound will remain at a standstill. The lips will become retracted, assume a pale or bluish color, become puffy and exude an ichorous discharge. This condition will usually be found due to a foreign body imbedded. It may be at considerable distance from the point of entrance. A piece of cinder may be driven into the wound at the time of accident and pass beneath the fascia into the loose areolar tissue and along the smooth surface of the aponeurosis of the occipitofrontalis, and possess such a contour that the movements of the scalp cause it to recede from the open wound rather than approach it, and on account of some constitutional peculiarity, fail to set up suppurative inflammation, but maintain such a degree of irritation as to completely thwart the healing process. When such a body is discovered and removed either through the open wound or by being cut down upon, healthy action is immediately resumed.

The proper treatment of scalp wounds requires the greatest care and patience and as much skill as can be had. Time is no object. This work is not done by the watch. Asepsis is an essential quality. Proper preparation is all important. If possible the patient should be removed to a modern dressing room, either in a hospital or office of a surgeon, where sterilized antiseptic water, curved basin, good razor and all other suitable appliances are at hand, absolute and antiseptic cleanliness of hands and instruments and field of injury and all materials used in dressing are the important points of this delicate work. The chief interest centers upon the cleansing of the wound, and in this, the most difficult operation is usually the removal of foreign bodies. If the wound is found to be filled with cinders, as is frequently the case in railroad injuries, a tedious work confronts the surgeon. These cinders are not confined to the open pocket of the uplifted scalp, but are deeply ground into the skin, fascia, areolar tissue, muscle and periosteum. Varying in size from a pea to the finest grains of powder this substance fairly saturates the wounded area of scalp, and though great time may be used in this cleansing process and all perceptable grains removed, still the staining effect of the powder may remain. If the wound be upon the forehead, bridge of nose or any other exposed surface, the disfigurement may be great and permanent, and notwithstanding every effort and the greatest skill have been used still an unjust reflection upon the operator may remain.

The best instrument for the removal of cinders and other like material is the curette of different sizes. This, aided by a forcible stream of warm antiseptic water and the use of ample time is usually successful in the removal of all grains, but the powder and its stains can only be removed by cutting away the tissue itself, which, in many cases would produce a scar of greater damage than the discoloration. For the purpose of removing cinder or powder stain from the eye ball, especially the sclerotica, the tissue may be scraped off to a considerable depth and leave no perceptable cicatrix, but upon the forehead or nose the skin cannot be removed without a remaining scar. Good results may be often obtained in the removal of cinder and powder stains from the scalp or face by free cantharidal vesication. The epidermis being elevated the serum washes the staining material out of the cutis into the vesicle.

A necessary adjunct to the proper cleaning and treatment of these wounds, when upon the hairy scalp, is the clean shaving of the field of dressing, usually about one-half inch on either side of the wound, unless the wound be very slight, when this may be omitted.

The suturing of scalp wounds is as necessary, and attended with as little danger, as the suturing of any other wounds. It has only been a few decades, however, since it was taught that this practice was objectionable on account of the part it was supposed to play in the production of inflammation. Adhesive plaster was advised for holding the lips of the wound together, or the tying across of locks of hair, an impracticable procedure. If a portion of the scalp is raised from the cranium, it is the better course to apply a drainage tube of small size. A small roll of iodoform gauze is frequently used for this purpose but this is more liable to form a plug by the superficial drying. If the wound is incised or small and upon the hairy scalp it may be dressed without the cap bandage by smearing it over with mercurial or zinc ointment or a solution of iodoform in collodion and spreading over it the hair. But, if large, a pad of antiseptic gauze should be used and a cap-bandage applied by passing a roller from right ear to left and return two or three times, being held at these points by a finger of the patient or an assistant, then three or four times around the forehead and occiput to the place of beginning and secured by a safety pin including the entire thickness, and a similar pinning on the opposite side. This bandage should be of gauze or domestic not exceeding two inches in width, nor three yards in length. If much exposure is to be encountered this may be covered with a crinoline bandage. Unless trouble is indicated by temperature or pain this dressing should not be disturbed for a period of four days, when it may be removed, after moistening with antiseptic water, the stitches taken out and also the drainage tube if no pus has formed. If infection, sloughing or erysipelas occur these are to be treated upon the principles of modern surgical practice for wounds in general.

INTESTINAL AUTO-INFECTION.*

G. J. RIVARD, M. D., ASSUMPTION.

Intestinal auto-infection means the pathological condition or toxemia resulting from the absorption of poisons generated within the intestinal tract. These poisons may be the result of chemical putrefaction or fermentative or bacterial action. We may have auto-infection from any part of the intestinal canal. Some claim that it occurs with more frequency in the small intestine on account of the increased amount of water in the feces, which may be conducive to the solution and absorption of certain bacteria and their products. Again others claim that auto-infection takes place more frequently in the large intestine, especially the descending colon, sigmoid flexure and rectum because the decreased watery elements leave the feces more nearly solid and they remain longer, and putrefaction takes place, septic microorganisms multiplying

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rapidly. These disturbing elements are taken up by the circulation and possibly by the lymphatics and thus disseminated to all parts of the body.

In order to better understand the morbid condition existing in intestinal auto-infection it may be well to recall what the normal contents of the intestinal canal are. Grossly speaking, the contents are made up of partially digested foods and liquids, of refuse products of foods, the excrementitious portions of digested fluid, water, gases and animal alkaloids, together with a multitude of microorganisms and their products.

We know but little at present of these gases, alkaloids and microorganisms as regards their action and properties in health and disease. There is no doubt however that as we become more familiar with the poisonous agents contained in the digestive fluids and excretions, we shall become more familiar with many diseases now called functional for the reason that we do not understand their pathology.

Bouchard has said, the organism in its normal as in its pathological state, is a receptacle and a laboratory of poisons, some of these are formed by the organism itself, others by microbes, which either are the guests, the normal inhabitants of the intestinal canal or are parasites at second hand and disease producing. He has shown that the peptones of normal digestion contains poisonous alkaloids which, whether due to gastric or lower down to pancreatic digestion, will when introduced into the blood of an animal cause death. He has shown that when the urinary tract becomes denuded of its epithelium, in a very short time a sufficient amount of poison is secreted by the kidneys to cause death. When we have renal suppression resulting in death he attributes it to the absorbtion of poisons normally secreted. As we become familiar with the almost innumerable poisons within us we are forced to admit that we are constantly tottering on the brink of self-destruction, and that we need only to disobey some one of nature's laws to upset the equilibrium and to fall a prey to some one of these poisons. It becomes apparent then that for auto-infection to take place two things are essential:

1st. There must be impairment of physiological function.

2d. That poisons are constantly formed in us in health.

We know that in the physical system every cell has a duty to perform and the same can be said of those aggregations of cells which we call organs. Impair or destroy a single one and the economy suffers, and the effect is in proportion to the importance of the work normally allotted to it. Now if from any cause, the liver, the lungs, the skin, the kidneys or the blood should get out of order and fail to perform their function, what is the result? Poisons that are being secreted are not being rendered harmless, on the one hand, or are not being thrown off, but are allowed to accumulate, enter the circulation and are distributed throughout the body, causing local or systemic infection as the case may be. Again the physical soil is prepared for absorption of poisons by anything that will cause a lesion of the intestinal mucosa or distend, press upon, or weaken the walls of the intestines, such as the accumulation of feces, tumors, strictures, ulcerations, inflammations, operations, etc.

Just so long as the emunctories are performing their individual functions and there is no lesion of the intestinal mucosa, all is well and all poisons whether fermentative or bacterial will be harmless for the reason that they are thrown into a special reservoir, and there destroyed or neutralized and afterward discharged from the body. The blood constantly takes from the organs poisons as soon as they are formed and renders them inert. This is done by the *defensive proteids* contained in the serum of the blood. They act in three different ways, 1st, by killing the bacteria; 2d, by weakening or attenuating the bacteria; 3d, by neutralizing toxins.

It is very difficult to determine in cases of auto-infection where health leaves off, and disease begins, for the reason that the poisons are physiological factors, and on the

other hand when the system becomes susceptible they become active pathological factors.

The most frequent cause of auto-infection is constipation, especially when complicated by a fecal impaction. The accumulated effete matters undergo decomposition, poisons of the ptomaines or leucomaines are formed which are as active as the bacilli of typhoid or cholera. The result of the absorption of these poisons is systemic infection with which we are all familiar in cases of chlorosis and anaemia. These patients complain of a feeling of lassitude on arising in the morning—headache which is almost constant. They are impatient and careless about attending to their usual duties, do not care to read or talk, are inclined to melancholia, pale, have greenish complexions and a foul breath. They have a depraved appetite, indigestion, dizziness and palpitation. The system may become so saturated with poisons that they look like a person with a malignant growth in an advanced stage. Auto-intoxication causes various circulatory disturbances. The cutaneous vessels become contracted, an increased amount of blood being thus thrown into the central organs and the body's equilibrium interfered with. The pulse may be slow or full or rapid and feeble, either condition depending upon the extent of intoxication and its influence upon the nervous system. The heart is frequently very excitable and patients have fainting spells. At times the blood, instead of being retained in the central organs, remains in the extremities and causes dilatation of the veins.

The effect of auto-infection on the respiratory organs is principally noticed when there is a lung complication and vice versa. All lung diseases become markedly worse when there is systemic intoxication for there is deficient oxygenation of the blood.

The colon bacillus plays an active part in the causation of some forms of pneumonia and empyema. In lung diseases when the amount of tissue involved is extensive and death ensues, it is due to auto-infection—a result of the accumulation and absorption of carbonic acid gas and other poisons that should have been eliminated by the lungs.

Auto-intoxication has a very marked effect on the skin; it may be pale, muddy, unhealthy in color, the secretions may be foul smelling and there may be one of the many skin diseases.

The effect of auto-intoxication on the nervous system is indeed very great. We observe it in our daily practice in a great diversity of nervous phenomena. Drowsiness, due to absorption of some intestinal gas, like sulphuretted hydrogen, which is known to have a soporific effect, is one of the most frequent of the nervous manifestations. Still these drowsy patients are poor sleepers. They roll and toss about the bed, have horrible dreams and awaken in the morning feeling weak and exhausted, and often bathed in a moist, clammy, unhealthy perspiration. Headache and neuralgia are due to intoxication. It matters not where the pain is located. Who has not seen the disappearance of headaches after the complete evacuation of the contents of the bowels? A number of nervous functional diseases are often produced as a result of fecal toxemia. The absorption of ptomaines and leucomaines is known to be a cause of some forms of insanity. Epileptics are known to have fewer attacks so long as the colon is kept cleaned out.

While constipation and fecal impaction are prime factors in the causation of auto-intoxication, yet this condition may be brought on by diarrhœa and other causes. Park tells us there takes place within the intestinal laboratory such a putrefaction as produces ptomaines which are at the same time toxic and cathartic in their action, so that the irritating material is expelled by virtue of the very poisons it has produced, and it furthermore often happens that the exhibition of a vigorous cathartic, for instance one of the mercurials, will so admirably clean out the intestinal canal that not merely is the entire action prevented or checked, but that a most happy effect is exerted upon septic disturbances commencing else-

where. Patients suffering from rectal ulcer become emaciated, nervous, have sallow complexion, are inclined to be melancholic or have all the symptoms of systemic infection. Diarrhœa is ever a prominent symptom of ulceration. It complicates matters by rendering soluble and distributing the poisonous elements in the feces to any exposed point of the mucosa and facilitating their entrance into the circulation. Perhaps the most typical cases of auto-infection from the intestinal canal are to be found in cases of stricture of the rectum and colon, for we have in these cases fecal impaction above the point of constriction and frequent stools induced by reflex peristalsis. The former causes ulceration of the walls of the bowels and favors putrefaction and fermentation, while the latter renders the poisons capable of being scattered about. As a result more poisons are generated and absorbed than nature can take care of and you have systematic intoxication. In fact any disturbance of the bowel which causes a diarhœa or constipation predisposes the individual to auto-infection and its many evils.

Among the intestinal bacteria the *colon bacillus communis* is the king of disturbers. It has been found in nearly all the organs in the body and is said to have pyogenic properties. It has been found most frequently in cases of infectious diarrhœa, empyema following enteritis, broncho-pnemonia, endocarditis, cystitis, nephritis, disorders of the liver, appendicitis, periappendical abscess, perforative peritonitis, laparotomy wounds, in fluid of strangulated hernia and perirectal abscess.

The treatment of auto-infection should be in a large measure prophylactic. 1st, We must remedy any condition which predisposes the patient to self-infection. 2d, We must use every possible means to prevent abnormal production and absorption of poisons within the intestinal canal. 3d, We must do all we can to assist nature to neutralize and eliminate poisons already absorbed. All conditions which weaken or cause erosion of the intestinal mucous membranes must be corrected. Such as irritating discharges of all kinds, ulcers, fissures, hemorrhoids, polypi and other growths. Constipation and diarrhœa, the most frequent causes of auto-infection must be corrected. A good and safe plan when an irritant within the intestinal canal promotes auto-infection is to give a vigorous cathartic, calomel followed by epsom salts or castor oil probably being the most effective. This must be followed by a tonic laxative for a long or short period dependent upon the extent and continuation of the infection. Laxative mineral waters such as Hunyadi or Carlsbad, a pill composed of aloin, strychnia and belladonna or one composed of lactate of iron, nux vomica and aloes are all efficient in eliminating poisons. After abdominal operations, the wound being healthy, if the temperature should suddenly rise on account of auto-infection, a carthartic should be administered which cleanses the bowel of accumulated feces and the temperature will immediately become normal. In obstetric practice we occasionally meet cases which make most favorable progress until suddenly a chill, followed by high fever leads us to suspect infection. A brisk cathartic is followed by a fall in the temperature and an amelioration of all the distressing symptoms. A short time ago I attended a case of obstetrics in which the lady was delivered with the forceps after a 36 hour labor. Two hours after delivery the mother was to all appearances in a state of profound shock, pulse 150, very feeble, skin bathed in a copious perspiration, breathing rapid, pupils dilated, thirst intense. There was no uterine hemorrhage, neither internal nor external. The discharge being normal in every respect. The bowels had moved during the day previous to confinement. Aromatic Spt. Am., digitalis and nitroglycerin were administered with no perceptible benefit. Upon palpation the abdomen was found to contain hard lumps, principally in the region of descending colon. A diagnosis of fecal impaction having been made, an enema of 1/2 gallon of hot water was given. In half an hour a large evacuation of hard and dry lumps of fecal matter

took place. In an hour a second enema of 3 quarts of hot water was given which was followed by a passage which thoroughly emptied the colon. In a very short time the alarming symptoms disappeared and the patient was comfortable.

Errors of diet should be watched closely, alcoholic stimulants should be prohibited and if a special diet is recommended milk should be selected because it is known to be opposed to all sources of intoxication due to putrefaction.

The next step in the treatment of this auto-infection is the prevention of the abnormal production and absorption of poisons. To accomplish this we must rely on intestinal antiseptics, both local and general. Among the most efficient ones are the iodides of potassium and sodium, iodine, benzine, boric acid, salol, resorcin, turpentine and mercurials. The best results are usually obtained from those insoluble drugs which remain unchanged throughout their course till they reach the colon, such as salicylates of bismuth, salol, iodoform, naphthalin. To neutralize poisons already formed and prevent fermentation, 10 grs. each of Bis. Sub. nitrate and charcoal repeated at short intervals are very efficient. Iodoform and charcoal or naphthaline and charcoal will accomplish the same purpose.

The last feature in the treatment consists in assisting nature to neutralize and eliminate poisons which have already entered the circulation. To accomplish this the eliminary apparatus must be kept in perfect order, for when one of the emunctories gets out of order poisons immediately accumulate which nature can neither neutralize nor eliminate. The blood and nervous system must be kept up by such tonics as Gudes peptomangan, strychnia, arsenic, etc.

The kidneys may be stimulated by diuretin or urotropin and the skin kept in order by frequent cold baths followed by brisk toweling.

In closing this paper I wish to call your attention to but one more therapeutic measuse used in the treatment of auto-intoxication, and that is colonic lavage. Especially is it of benefit in cases of gastro intestinal atony, and of catarrhal inflammation of the bile ducts when the liver becomes unable to take care of the poisons which pass through it from the blood, also in uremia or auto-intoxication arising from suppression of the renal functions. The skin is capable of excreting more toxic material on account of the increased circulation resulting from lavage.

INFLUENCE OF MIND ON BODY.*

BY J. E. SUTTON, M. D., CANTON.

Fads in medicine are delusions in regard to the unpossessed curative powers of drugs, or the curative virtues of necromancy, jugglery, sorcery, conjury, slight of hand, osteopathy, suggestion, christian science, divine healing, magnetic healing. Conjury and sorcery was practiced in the days of the Pharaohs. Christian science, suggestion and magnetic healing are delusions of this enlightened age. Medical fads, like the ocean tides, rise and fall twice every 24 hours, phœnix-like.

"When one delusion sinks and dies
A hundred from its ashes rise."

This extract from a communication to the *Medical Summary* by Dr.G.M.Dewey, expresses, perhaps, the common professional belief with reference to all practices outside of our own. It is well that we believe in ourselves, in our church, in our political party, in our nation against the world. It is fundamental to success that we believe in something, intensely and strong. It is by no means absolutely necessary that our beliefs be scientifically and demonstrably true. It is enough if our best welfare is promoted physically and morally.

Delusion, in a sense, is inherent in the nature of things—a necessary accompaniment in the way of advancement on whatever line. We are but "babes in the woods" and must work our way out from the tangle and brush, through storm and

*Paper read before the Fulton County Medical Society, April. 1900

sunshine, day light and darkness, and not be disarranged by the hooting of owls of wisdom, perched above our heads, who see more in the dark than they possibly can in the light.

The writer quoted above says: "Christian science, suggestion and magnetic healing are the delusions of this enlightened age." That there is an epidemic of "fads" needs but the statement, as you are all fully aware of the fact, and the marvelous extension, especially of christian science over the whole world within recent times, and must also be cognizant of the fact that much good is being accomplished, i. e. many cures of disease are effected, numbering among them scores of cases that have baffled the skill of our best physicians. I state this as beyond contradiction. Accepting this statement as true, what is our duty with relation to the fact? Manifestly, as men of science, to inquire into the cause, not simply to cry delusion—delusion, all delusion.

Without going into a profound discussion, with proof, it will be presumed that no one will deny the existence of a something in nature called matter. Another something called energy or force. Still another called intelligence or mind. It will be admitted also that all our knowledge of matter comes to us through the medium of impressions on our senses. And these impressions or suggestions, if you please, are made through or by forces of which matter is the vehicle. That is to say, we know absolutely nothing about matter except as impressions on our senses translated or interpreted by the mind and this interpretation varying greatly according to different circumstances and conditions. We form different ideas of the same thing when, in reality, no difference exists. For instance matter in motion, impresses us in one case as heat, in another as light, in another as sound, in another as electricity, and in another as nerve force; each and every one scientifically different modes of motion translated by the mind in some way to suit the exigencies of the case and bring us into relation with our surroundings.

Apropos to this permit me to quote M. Chas. Richet, French scientist, in Revue Scientific, Dec. 23, 1899: "The exterior world with all its aspects, infinitely diversified, its colors and its forms is but the sum of different vibrations. These vibrations of diverse qualities and energies, act on the living being and produce sensations in him. Now it is very likely that the vibrations in the external world act on our sense organs, by producing in us another form of vibration necessary for the existence of perception and sensation. Nerve vibration thus seems to be the consequence and final result of external vibrations. If there were no nerve vibrations, there would still assuredly be in the world all the other forms of vibration that now exist, but they could produce no physiological effect. The human consciousness could not be reached. The living creature, by the fact of his own vibrations is the receptacle—the microcosm on which at each moment the different vibrations of the universe are concentrated, and the universe is accessible to our knowledge only through this vibration." Ponder then for a moment. Is it self evident that our whole idea of matter is not a mere concept of the mind, and that *force* is not the reality of which we are directly cognizant as coming in immediate relation to our personal consciousness, and, therefore, that there may not be more truth than poetry in the teachings of christian science that "nothing *exists but mind.*" Prof. Clifford, one of England's greatest men, said: "The universe is made up entirely of mind-stuff. Some of this is woven into the complex form of human minds containing imperfect representations of the mind-stuff outside of them."

So also Herbert Spencer: "The power manifested throughout the universe distinguished as material, is the same power which in ourselves wells up under the form of consciousness." At all events it is before this great mystery these "christian scientists bow and ignorantly worship. God pity the ignorance, stupidity and superstition of this enlightened age. At the beginning of the 20th century, and submerg-

ing their objective sense beneath subjective dreams they produce within themselves that disaggregation of consciousness, which forms the working basis, or condition for hypnotic suggestion, a powerful resource in the cure of many diseases when intelligently applied. But laying aside science we will maintain the common sense view that there exists matter force and mind and all the phenomena of life consist of a play of these elements, each affecting the other in varying ways and degrees according to the circumstances and conditions present at any given time.

We are then to discuss as briefly as possible the influence of mind on body to see if a scientific and rational explanation of the wonderful cures reported of the various so-called "fads" is not at hand and ready for adoption to its fullest extent by the profession of today.

What then is mind? Not simply a thinker, but a mental force capable of acting on matter—the body. It may be regarded in its manifestations as subjective or objective, conscious or unconscious. It is a function of the mind to think and act consciously. So also is it to think and act unconsciously. In fact the most and best work of the mind is done unconsciously, a truth not so fully recognized as it should be.

Let us notice then a few of the effects of mind physiologically. Joy and hope quickens the circulation and excites the whole muscular system. Grief and despair depresses, and inhibits the flow of blood. Courage gives a lofty step, muscles firm and resisting. Anger flushes the face, contracts the upper lip and impels the body forward. Fear pales the countenance, shrinks and paralyzes the muscles, causes spasmodic respiration and impels the body backward. So we might go on and contrast love and hate, pride and humility, adoration and revenge, etc., etc., all exhibiting the effects of mind acting on the body physiologically. Now notice some other effects. A short time since a gentleman somewhere in Indiana attempted to scare a couple of boys who were committing some depredation on his premises by firing off a gun. One of the lads played shot. A neighbor woman, hearing his cries, dropped dead. The gentleman supposing he had shot the woman, took immediately to his bed sick and became rapidly unconscious (reported in Chicago Tribune of recent date).

A station master of one of the Italian railways 55 years of age and in robust health, was awakened one morning with the news that his station had been robbed. He felt his responsibility so acutely that he immediately became ill and died within 24 hours, all assurances of his superiors and the encouragement of his relations failing to reassure him. There was utter prostration, spasmodic action of the stomach with obstinate vomiting, hollow voice and failing pulse, consciousness continuing to the last (reported in Medical Times and Gazette, 1868).

Before the People's Bank of Canton broke some years ago, Mr. Dite Hoblitt, the cashier, and practically the whole bank, so far as its operations were concerned, was as large, full and healthy a specimen of humanity as one could wish to see. After the break he at once fell sick because completely prostrated. Could neither eat, drink nor sleep, body contracted and shrivelled in appearance, heart weak and rapid and thus he continued going down in spite of doctors and friends until death came to his relief a short time thereafter.

Dr. Darwin relates: "A young farmer in Warwickshire, Eng., finding his hedge broken and sticks carried away during a frosty season, determined to watch for the thief. An old woman approached and began to pull up the hedge. He waited till she had tied up her bundlle, then springing from his concealment he seized his prey with violent threats. After some altercation in which her load was left on the ground. She kneeled upon the bundle of sticks, and raising her arms to heaven beneath the bright moon, spoke to the farmer already shivering with cold: *"Heaven grant thou never mayest know again the blessing to be warm."* He complained of cold all the next day, and wore an upper

coat, and in a few days another, and in a fortnight took to his bed, always saying nothing made him warm. He covered himself with many blankets and from this one insane idea he kept his bed above twenty years for fear of the cold air till at length he died." These are examples of diseased action or along the pathological line.

While making a call in the west part of Canton a gnat got into my eye (at least I thought so). It resisted every effort at dislodgement; pained so severely that it was necessary to keep the eye closed, and with a handkerchief over it I hurried to my office and before the mirror proceeded to get rid of the offense, but 'pon mine honor I could see no difference between that and the other eye. The pain disappeared as if by magic. There was absolutely nothing in it, or about it to cause any pain. It was purely imaginary and could have been easily cured by prayer, or christian science, or any other such thing.

Late one fall I called to see a patient on a cold, damp morning, and inadvertently sat down too near a stove. Presently I began to get warm—hot, oh! so hot. Jumping up I grabbed my chair exclaiming: "Can't stand this—*too hot here*!" Whereupon the lady of the house laughed outright, saying, "Why there isn't a bit of fire in the stove." It was true. Examination proved it and I cooled down. Imagination pure—sensation from within.

A soldier in the French army was dropped on field of battle by a large cannon ball, where he lay in agony almost dying of thirst, till 24 hours later he was found by those attending to the dead and wounded. They enquired, "Well, what's the matter with you?" Why both of my legs are shot off and I am nearly bled to death." "Nonsense. Get up here." He finds the ball had struck at his feet ploughing out a hole into which his feet dropped, the shock also knocking him down, and altogether he was as good as dead—in his mind. These are purely imaginary effects. Hundreds upon hundreds of such like instances as noted above could be related, but I leave you to draw on your own experiences and imagination, while I present the following propositions:

1st. That sudden mental emotion may induce sickness or death within a brief space of time, or even immediately and in persons of robust health.

2d. The physical phenomena induced by such cause indicate a deep perturbation —*vibration*—of the nervous system, and are generally of a dynamic character.

3d. Thought strongly directed to any part tends to increase its vascularity and consequently its sensibility. Associated with a powerful emotion these effects are more strikingly shown.

4th. Thought strongly directed *away* from any part diminishes vascularity and lessens sensibility. The more so when associated with powerful emotions (the key which unlocks christian science and other fads).

5th. The emotions may cause sensations, either by directly exciting the sensory ganglia and the central extremities of the nerves of sensation; or, by inducing vascular changes in a certain part of the body which excite the sensitive nerves at their peripheral termination.

6th. There is no sensation, whether general or special, excited by agents acting on the body from without which cannot be excited also from within by emotional states affecting the sensory ganglia, such sensation being referred by the mind to the point at which the nerve terminates in the body.

To elucidate these propositions fully and satisfactorily in the short time allowed for this paper is an utter impossibility. However, perhaps we have sufficiently indicated in the foregoing the power of the mind on the body and the scientific basis of disease and its cure as practiced by the "scientists" and all that genus down to Dowie. It is that disease is either purely mental or influenced more or less by mental condition (surely this latter must be true), and therefore amenable to, or largely effected by the applications of the laws governing mental force. It is not to be contended for a moment, that mental force can directly de-

stroy infection, kill microbes, neutralize poisons, set bones or perform any surgical operation. Such utter nonsense is too absurd for any to believe excepting God forsaken fools. Yet, indirectly, we would say by modifying circulation and sensibility, stimulating secretion and excretion and improving nutrition and quality of blood, any and all diseases or lesions may be favorably effected thereby. We would insist then on looking on the mind as a *force* not simply a thinker. All thought tends to work out in action—motion—and thus we become aware of energy. There is, therefore, a profound truth in the expression, "*As a man thinketh in his heart, so is he,*" and *don't you forget it*, if you will allow a little slang. Carying out this idea, when a man thinks he is sick, *he is*, or *will be*. And if you can make him think otherwise, or diverting his thoughts away from the diseased parts and putting in operation health producing thoughts he will *be* well, or *get* well. This is all there is in christian science, and it has no more divinity in it than a stone. I have studied more or less for years, with interest and care, mesmerism, magnetic healing, faith cure, etc., etc., and am thoroughly convinced, not only of their more or less practical potency, but that they are all of a kind, and dependent entirely upon the natural force of the mind acting on the body, utilized by suggestion. This is no delusion. It is simply a fact. To present this properly would require an extensive inquiry into psychology to familiarize ourselves with the working of the mind through brain and nervous system, and particularly into psychology of suggestion. But time will not permit. I refer you to Prof. James' work, of Harvard, two large volumes, as the best I know of while I content myself with a few suggestions on *Suggestion* in its special application to the cure of disease.

Now "suggestibility is a fundamental attribute of man's nature," and being fundamental we are all of us necessarily more or less suggestible, and perhaps may be made completely so under certain conditions. When we shall act as machines on suggestions from within or without, no conscious mental supervision or control being had, at least apparently. This is mesmerism or hypnotism, or more correctly, *abnormal suggestibility*, and is the condition of the thousands of deluded followers of magnetic healers, divine healers, osteopaths, etc., etc., human beings temporarily bereft of reason and common sense, and yet for all that, in many cases physically benefitted by their insanity. There is a better way, which does not involve danger of permanent mental disability or any rupture of personal consciousness. To this we should apply ourselves. Thirty-six years ago, while practicing in Michigan, I was called to see an Indian maiden 18 years of age subject to epileptic fits, had been for years, was at the time in midst of one. I examined her carefully, heart, lungs, eyes, etc., etc. Following day the Indian chief called to get some medicine as directed. Reported his daughter came to in time and surprised them by saying "the doctor been to see me, and he cure me. Sure he cure me." Well, positively to my own knowledge, she never had another fit. Completely cured. How? By suggestions of her own mind, instigated by my close examination.

Two or three years since, after a curetage, the lady suffered considerable pain with some temperature, for which sedatives and warm douches were given without much, if any relief. Evening of third day found her suffering more intensely, enough to make us rather anxious. About 2 o'clock that night was called up to see her. Could hear her cries from pain when quite a distance from the house. With all my anxiety, I determined to see what suggestion would do for her. Gave a placebo, and quietly suggested relief from pain and sleep. Keeping these ideas before her mind for perhaps a half hour, insisting when she woke up, the pain and distress would not return again. Left her sound asleep. Morning call found she had slept soundly, was feeling free from pain and *well*, and so she remained from that time on.

Some time ago was called to a confinement case about 10 o'clock P. M. Indica-

tions favorable for delivery sometime during the night, but for some reason, I did not wish to stay and so suggested to the lady she would not be confined during the night. She was not ready, etc., etc. She had better resist her pains, go to sleep and it would all be right in the morning. This idea was impressed on her mind and talked to her until she went to sleep, and I went home. Next day was called, found she had slept well through the night. Nature had been quietly working in the case and in a short time she was delivered.

These, from my own experience, are offered to show not any mesmeric power, or magnetism, or *anything* but the power of the patient's mind on the body through suggestion pure and simple.

A case from Dr. Parkyn, of Chicago, a thoroughly educated regular M. D. may, perhaps, more forcibly present to your minds the point aimed at. Mrs. F., case of functional diabetes, had existed six years, during which she had suffered greatly from neuralgia, constipation, dysmenorrhea, melancholia, insomnia, great weakness, with constant micturition. Had been continually under treatment by physicians with no benefit as to cure. Coming under our care, *All medicines were discarded.* The neuralgia was removed the first treatment, the insomnia after the third, the constipation after the fourth, and the patient passed through an almost painless menstrual period. With regard to the diabetes, a few suggestive treatments put a check on that, and she rapidly gained in weight, became the very picture of health. Was restored perfectly *in a few weeks* after six years of suffering, and ingestion of untold quantities of drugs, by what? Nothing in the world but the force of her own mind under mental suggestion by Dr. Parkyn.

Now gentlemen, in closing, let me tell you what I have tried to do. 1st, To show that the mind in action is a great force, akin *to*, if not indentical *with* nerve force, electricity, heat and motion. 2d, It manifests its power in the physiological processes of life. 3d, It manifests its power, also, in the pathological processes. Therefore, it may be potent for good or evil, according to circumstances—it is so—and by its virtues may be utilized by us *intelligently* in the cure of disease. And finally, *with force* it does not belong by right divine to mountebanks, quacks nor fools, but to the man of science who is capable of knowing he has a mind, and what to do with it.

THE SPANISH-AMERICAN WAR AS SEEN BY THE MILITARY SURGEON.*

BY GEO. E. HILGARD, BELLEVILLE.

Captain and Assistant Surgeon 4th Regiment Ill. Vol. Inf.

The Seventh Army Corps, of which our regiment was a part, not having been in an engagement with the enemy, the surgical aspect of the Spanish-American War, with the results of the modern projectiles as compared with those in use formerly, and all this entails, must be relegated to some one more fortunate than myself.

Our first rendezvous was at Camp Tanner, Springfield, Illinois. This was the camp of instruction, not only for the men and their officers, but also, and almost more important, for the medical staff. Each night a lecture on a given subject was delivered, followed by a general discussion. A cadaver was procured, and, after the evening's discourse or anatomical demonstration, an interesting operation would be performed by Dr. Senn, who is a master of surgery. The Illinois National Guard is very fortunate in having as the head of its medical department such a surgeon as Dr. Nicholas Senn, of Chicago. It was due to his untiring efforts and self-sacrifice that our sojourn there was of material benefit, especially to the younger members of the profession, among which I am numbered. The noble doctor was not destined to remain with us, as his ability soon procured him an advancement.

Each day one of the surgeons would be appointed as medical officer of the day. It

*Read at the Meeting of the Illinois Association of Army Surgeons, Chicago, April 10, 1900.

was his duty to inspect the various camps, mess houses, sinks, and general condition of the grounds. After a time the sale of pastries was forbidden, and then his most arduous duty was to be on guard for "pie-women," who would pass the sentinels notwithstanding all their vigilance.

An examination, both physical and mental, of the medical officers was soon held to determine who should be commissioned in the volunteer army. Much to their credit, the applicants, with but few exceptions, were successful. After this had been decided, came the physical examination of the soldiers. Having several regiments to inspect the surgeons were very busy for several days.

If at Camp Tanner more attention had been given the different medical reports that were to be rendered, and more knowledge concerning the keeping of records been diffused, much useless anxiety, worry, and labor would have been obviated. To a civilian physician nothing is more intricate and involves more puzzling features than the correct, unimpeachable manner in which reports were to be made and records kept. It was my lot to have this brought forcibly to mind late in my experience. True, this was part of the hospital steward's duty, but if he, a civilian too, desired aid from a superior officer and it could not be given him, where was the information to be obtained?

We had been in Camp Cuba Libre, Fla., whence we had repaired from Springfield, and where we had comparatively no sickness, only a few days, when I, with one of the hospital stewards, was ordered to the ambulance company, second division. This company was being organized by John G. Byrne, Assistant Surgeon, 2nd Ill. Vol. Inf. Here we had no medical work, except lecturing on "first aid," and drilling the men in the handling of the sick and injured. My first few days were spent in superintending the herding of about one hundred army mules that were continually breaking their fetters, and so caused us much exercise. Well do I remember one day that Dr. Byrne and I explored the surrounding five miles of territory for a troublesome 2×4 donkey that had strayed during the night. By this episode, and the continued supervision of the animals, the M. D.'s of our names were soon remarked to be the abbreviations of "mule drivers."

Hardly had we become secure on the score of the mules, when several wagons, in pieces, were unloaded upon us. And now we had a more learned task to perform. 'Twas amusing to be asked where this and that nut and screw belonged. But of course, being physicians and surgeons, and having studied fractures and dislocations, we were not at a loss.

Then came the litter drills. Being the junior officer, I was detailed for this work. By dint of application to a manual I succeeded fairly well in this. It was also my fortune to be appointed judge-advocate of a garrison court martial that was in session over a month. This class of work is strictly legal, as you all know.

I remained with the ambulance company, free from material responsibility, for three months. Then what a change came in my fate. Suddenly I was ordered to return to the regiment. On my arrival the major surgeon was acting brigade surgeon, and the other assistant surgeon had secured a leave of absence and soon left with a sick train for the North. And this when the ill-health of the regiment had reached its acme. One of the stewards had early in his career been detailed to the medical supply depot. The second, a graduate in medicine, who had been with the regiment all this time, was taken ill and secured a furlough. The third, who had been with me at the ambulance company until a few days prior to my return, was all that was left of assistance. Of the two privates, one was discharged, and the other obtained a furlough. The remaining steward proved himself a wonder of endurance, knowledge and good cheer. Nothing was too much for him; he never complained. Not only did he fill prescriptions, treat minor ailments, make out requisitions, etc., but also kept all records. At this time the consolidated morning sick report averaged two hundred and fifty;

this including probably one hundred in the division hospital. Of those in camp the majority were able to travel to the dispensary for their treatment. But there were too many unable to, for one doctor to do them and himself justice. The desk work in itself was almost sufficient to employ one medical officer constantly; reports of all sorts, records, requisitions, applications for sick furloughs, etc.

Typhoid, usually atypical, and the malarial fevers were the scourge. Diarrhea and dysentery claimed their share of victims, though we suffered no death due to them.

The development and propagation of disease must be assigned to the following causes:

(1) The cooking, for the most part, was defective. Improper food caused much digestive derangement and consequent innutrition. Each company should have attached to it a good cook. The habit of detailing men to mess duty as a punishment is a very pernicious one. They are usually ignorant of the art, not having had experience before, and care not for the state of preparation if their main work is accomplished.

(2) The tents were too crowded; thus preventing such cleanliness as should be found within and without. And not enough attention was given to personal cleanliness.

(3) Then too the men were exposed to the stress of the weather.

(4) The habit the men had of buying all sorts of eatables from the venders that frequented the camps was a very unhygienic procedure. This can be said of all soldiers. They know not what to eat nor the quantity to which they should limit themselves. After each pay day this fact became very apparent. It was then especially we were called upon to administer to cases of acute gastritis and intestinal colic.

(5) Probably some of the milk brought to camp was impure, as the neighborhood was unhealthy.

(6) The water was obtained from the city supply and was therefore considered good. It was not analyzed to my knowledge.

(7) The soils upon which the camps were pitched were poor selections. They were in the marshes of a river. After heavy rains miniature lakes dotted the entire camp. In both camps innumerable canals were made to favor proper drainage of surface water. Especially was this true of the first camp, which was not as sandy as the second. This applies to the Florida camps. The condition of the soil favored the dissemination of the pathogenic microorganisms. Naturally, living in this paludal atmosphere, malarial fevers were common.

In the first camp, the tub system of removing sewerage was used. Here typhoid fever had not gained a foothold. But at the second camp it held full sway. Sinks were dug and sand used to cover the evacuations. When the hole was filled it was covered, and another sunk in the near vicinity.

At the second camp typhoid fever was so prevalent that an order had been issued to us that cases presenting fever for seventy-two consecutive hours, that did not yield to quinine, were to be diagnosed as typhoid suspects and sent to the general hospital. This is simply related to show how very common typhoid was.

Sad to state, at this time the hospital proved inadequate for the numbers sent to it. Several times was I, during my encumbency as acting surgeon, notified to transfer only the worst cases, as there was not accommodation for all. This was very disheartening, but fortunately endured only a short while. This was in the month of September, 1898.

There being but one medical officer with the regiment, our colonel asked for assistance. Two contract surgeons were assigned us for temporary duty. One soon became ill and therefore was of little help. The other proved of inestimable value. The regiment was becoming so demoralized that something decisive had to be done. We were ordered to do provost duty in the city of Jacksonville. And now began the dis-

appearance of virulent diseases. True, we had several more deaths before we departed from this State; but they were all due to infection at the old camp.

Living thus in the city, with no more than two companies at a post, having excitement supplant the monotonous camp routine, proved almost a panacea.

From Florida we proceeded to Savannah, Ga.—still on provost duty. The command maintained its excellent health. A short time only had we been relieved from this pleasant duty when we were ordered to Cuba.

On the transport measles developed in the regiment that accompanied us. And this was the principal disease that effected our men during the first month's stay on the island. Before the epidemic was checked, probably fifty cases were reported, some escaping detection having it so mildly they did not care to complain. Of the patients, the majority claimed to have had it before.

During our three month's stay in Cuba, death invaded our ranks but once; a drowning.

It is a noteworthy fact that after our departure from Florida, where we had about thirty deaths, this in five months, the latter two of which proved more costly, the following seven months showed one death only, and that not from disease.

The ideal camp we had at Camp Columbia, Cuba. The natural drainage was perfect, the tents less crowded, and the men had gained much wisdom from their past experiences. The sewage was deposited in holes dug for the purpose. Each hour a squad, under command of the sanitary officer, would visit these sinks and cover them with a layer of lime and dirt; a carbolic acid solution being used as a disinfectant. The prisoners were compelled to maintain the cleanliness of the camp, all foreign matter being removed as soon as discovered. All stumps, trees, fences and walls were given a coat of whitewash. Lime was used under the tents, whose floors were raised a foot from the ground. And daily was every tent aired, the flaps being thrown wide open and the sides rolled up. Each company was supplied with a Pasteur Germ-Proof Filter; it detailed a man whose exclusive duty it was to constantly have on hand a supply of filtered water, and who was responsible for this and the condition of the filter. A medical officer daily inspected these filters, and made weekly reports concerning their care and condition.

As regimental hospitals were permitted for a short time only, our observance of diseases of the more virulent types was limited to the initial stages and the diagnoses. Of the diseases encountered there was no end. As has been stated before, the malarial and intestinal diseases were the most prevalent. The venereal troubles with their complications naturally were extremely common. The vaccination of the regiment, both in the States and Cuba, produced some extreme cases of vaccinia. These were principally due to mixed infection by scratching, and premature removal of the aseptic covering. Several herniæ, some caused by service, but most undiscovered at the examination, were noted. These, it was remarked, occurred principally among the recruits later admitted. Defective teeth produced much pain and discomfort to some of the men. Several fractures were encountered. As foot gear is not made to individual measure, painful affections of the feet, due to ill-fitting shoes, were not rare. Among some of the other affections treated may be mentioned scarlet fever, parotitis, pneumonia, bronchitis, renal colic, catarrhal jaundice, and rheumatism. Though we experienced several cases of heat exhaustion, not one of true sunstroke was met with. In Cs'er's "Practice of Medicine" we find the following: "Guiteras has called attention to a form of fever occurring in the South, known as 'Florida Fever;' in the Carolines as 'Country Fever,' and in tropical countries as 'Fievre Inflammatoire.' The cases last for a variable time, and are mistaken for malarial or typhoid." But he believes them to be entirely distinct, and due to a prolonged action of high temperatures. He has called the condition a "continued thermic fever."

Were we mistaken in some of our diagnoses of malaria and typhoid?

Of the different branches of service, the medical department deserves the greatest praise. To it fell the most responsibility and labor. Its members were all conscientious, earnest men whose great pleasure it was to fulfill their duties. Every precaution was taken to insure good health. The drugs, instruments, and accessories, furnished were all of the best. Every reasonable request was granted. Requisitions were promptly allowed. Hospital accommodations, with a few days exception, were always ample and excellent. The innovation of female nurses was a boon to the afflicted.

The low mortality rate was a fitting tribute to knowledge, skill, untiring energy, and general efficiency of the medical department.

Before closing I desire to give a summary of my work: The field and staff were mustered into the United States service May 20th. The latter part of the month we were ordered to Tampa, Fla. Enroute our destination was changed to Jacksonville, Fla. About June 6th, I was assigned to the Ambulance Company, 2nd Division, 7th Army Corps. Remained on duty here until September 10th, when I was returned to the regiment, and acted as surgeon until October. Thenceforth I was with the command as assistant surgeon. The latter part of October we were sent to Savannah, Ga. January the 3d, we sailed for Cuba; there we remained until April. We departed from the island April 4th, landed at Port Tampa, and traveled then to Augusta, Ga., where we were mustered out, May 2d, 1899.

HISTORY OF OUR MEDICAL LAWS*

BY A. C. CORR, M. D., CARLINVILLE.

Mr. President, Brothers and Sisters in Medicine, I thank you for the honor conferred on me by inviting me to take a place in your program on this occasion. And in doing so, I have to confess that I cannot do the subject full justice.

To give a full "History of the Medical Laws" of the State of Illinois, would require more talent than I possess, and more time than is at my disposal on this occasion. I confess to a feeling of diffidence when I see that I am confronted by a spirit of rivalry as to priority in the agitation that culminated in the creation of State Board of Health, and the procuring of a law Regulating the Practice of Medicine in the State.

Since I have been calling the attention of the profession, especially the membership of the State Society, to the origin of the State Board of Health, the Legislative Committee and their important relations to each other, I have been informed by three different and distinct parties that they were the original instigators of the movement that culminated in the creation of the State Board of Health, and the enactment of the Laws Regulating the Practice of Medicine.

I have not, however, deemed it worth while to go beyond the records of the Society to establish any claim to priority, as I was only striving to bring the attention of the organized profession of the State to realize that the Legislative Committee was created by the organized profession represented by the Society, and that it was instructed by the Society to procure the enactment of a law creating a State Board of Health, and to Regulate the Practice of Medicine.

I think I have shown elsewhere that these relations were so intimate and of such importance that they *ought* not to be so lightly regarded by either.

In doing this I may have mentioned with emphasis the names of some who were no more conspicuous than others.

In doing so I have only mentioned those who were so mentioned in the authenticated records of the Society.

Having done so I hope I shall have excited no *malaise* in anyone.

When I began to agitate the importance of the origin of the Legislative Committee and the State Board of Health, and their

*Read at Jacksonville, April 10, 1900. See minutes of meeting in this issue.

relations to each other and the present Society, it was in 1895, when in November I went before the Southern Illinois Medical Society, *then a rival Society*, with a fraternal delegates' certificate from the State Society, and the greetings of its President, Dr. Brower, when in my response to having the courtesies of that Society extended to me as a delegate from the State Society, I argued the importance of their Society becoming auxiliary, so as to give greater influence in *legislative matters* to our *Legislative Committee.*

As a result of that course and argument a resolution was passed at that meeting declaring that the Southern Illinois Medical Society *is auxiliary to the State Society.*

I was alone in this, and of my own suggestion. No other delegate of the State Society was present.

I was made a member of that Society at that meeting, and next year when the Society met in Centralia I read a paper, entitled, "The Claims of the State Society on the Local Auxiliary Societies and the Profession of the State," which claim I based on the importance of the Legislative Committee of the State Society and the Medical Laws it had procured.

At this meeting I met Dr. Kreider, and the late Dr. J. B. Hamilton, then Treasurer and Secretary of the State Society, on much the same mission.

In the second year following, 1897, in my Presidential address, if you recollect, or will take the time to read, you will find I further detailed the origin interdependent relations and importance of the Societies' Legislative Committee, in part, in these words:

"The question as to the Societies' needs, which I desire to bring most forcibly before you at this time, is the matter pertaining to the Legislative Committee.

"The nature and usefulness of this Committee seems to be a development, not yet perfect."

The nature and usefulness of this, now standing committee, can be best illustrated by giving a "History of Our Medical Laws," as suggested in your program.

If you note the preamble to the Constitution and By-Laws of the State Society, adopted at its organization, now fifty years ago, you will readily infer that many laws on the Statutes, not strictly medical, have had the influence of the organized medical profession in their adoption.

This preamble declares, "The objects are the organization of the profession of the State for its united influence on questions pertaining to *public charities, State asylums* and other institutions, and on all questions of a medical, sanitary, charitable or educational nature, and the procuring of such legislation as will reflect the views and aims of the medical profession, in relation thereto; and also to promote the scientific, social and professional interests for which medical societies are usually organized."

If this inference be allowed, and doubtless it should be, I could not give a history of a tithe of the philanthropic, charitable and educational legislation the organized medical profession of the State has promoted.

The first act I find reference to in transactions or in the Statutes that might be included in "our Medical Laws," and in accordance with the Preamble of Constitution and By-Laws of the State Society, is an "Act to create a Board of Commissioners of Public Charities," which went into effect April 9, 1869. This created a commission to superintend in a systematic way, all the State charities, asylums and penal institutions.

Its scope and usefulness, and your knowledge of it, render it unnecessary for me to comment on it further.

On July 1, 1874, an act went into force appropriating means and arranging a suitable building for the better care of the feeble minded children of the State.

This bill was recommended by the Illinois State Medical Society, and a committee was appointed at the suggestion of Dr. C. T. Wilbur, then a member of the Society and superintendent of a school for these unfortunates, which I think was carried on some time by the doctor in some temporary buildings in Jacksonville, under annual ap-

propriations for running expenses by the Legislature, prior to this act.

Then an appropriation and plans were made for the construction of the beautiful and commodious structure now located at Lincoln.

Next in order was the procuring of an act creating a State Board of Health, and one Regulating the Practice of Medicine in the State.

These two were enacted at the instigation of the State Society. When in 1876 it met in Urbana, Dr. H. S. Birney moved that a Legislative Committee be appointed to memorialize the Legislature on the subject of a State Board of Health, and the Regulation of the Practice of Medicine.

That committee consisted of Drs. E. W. Gray of Bloomington, Wm. W. Chambers of Charleston, S. H. Birney of Urbana, William Massa of Paris, and B. F. Haller of Vandalia, and on July 1, next year,' '77, the two acts became a law .

There seems to have been a general unanimity of thought in regard to the necessity of these two laws, for others, not of the committee, were working to procure the same.

Drs. A. R. Small of Chicago, and W. J. Chenoweth of Decatur claim, under date of Feb. 29, 1900, that they were the originators of the "Medical Law" of Illinois, in that they caused, through Senator Jefferson Rainey of Belleville, the California law introduced into the Legislature, and that it, with slight modifications, became *the law*.

They evidently refer only to the Law Regulating the Practice of Medicine, as they say there were others at the Legislature, from Bloomington, striving to procure the passage of a law creating a Board of Health, with whom they combined and obtained the passage of the two—there being two laws pending at once. The one creating a State Board of Health and the other to Regulate the Practice of Medicine.

Dr. Silas Thompson Trowbridge of Decatur, President of the State Society in '68-9, did much in the agitation outside, while the laws were pending.

See his auto-biograbhy in lecture before the Ladies' Library Society, of Decatur, in which he also relates that he drafted a bill for a Board of Health and one to Regulate the Practice of Medicine, and had it introduced in the Legislature in *1867*, ten years prior to the introduction of the law that was passed. Doubtless there was a great deal of outside influence brought to bear on the Legislature to procure their passage.

On June 1, 1885, was passed what was then called "The Anatomy Act," and entitled, "An act to promote the Science of Medicine, etc."

This is probably the only one of all "Our Medical Laws" that directly favored the medical profession, but not more than the public. It provides that all unclaimed bodies be placed in a committee's hands, to be distributed pro rata among the colleges. Prior to the passage of this act, all bodies for dissections had to be stolen from cemeteries, and every college had to maintain a *resurrectionist*, who, like the sharpshooter in the civil war, skulked around the college where he pleased. I think this bill did not originate in the State Society, but in the Chicago Medical Society.

I recollect, however, that I circulated a petition among the physicians and the citizens of Carlinville and Macoupin county, to secure its passage.

On July 1, 1893, was passed an act to revise the law in relation to the commitment and detention of lunatics.

Dr. E. P. Cook, in his Presidential address in 1879, recommended that a committee be appointed to memorialize the Legislature on this amendment, and a bill was read before the session and endorsed. But it took long and earnest agitation to procure the passage of the amendment, for it was not obtained, until as above stated, July 1, 1893. Prior to the passage of this amendatory act, all cases of insanity had to be arraigned before a court, by criminal processes and a jury of six men, empanelled to determine their insanity. It will ever be a matter of astonishment why the Legisla-

ture could not comprehend the justice of this law for so long a time—*fourteen years.*

I am not able, just now, to determine the time when the first committee was appointed to secure an act for an asylum for epileptics, as an epileptic colony, but several years ago I know, and I believe $2,500 was appropriated for that purpose about two years ago. Dr. J. B. Maxwell of Mt. Carmel, a member of the now standing Legislative Committtee, has made several reports to the Society relative to the progress of the work on this bill.

I believe some one is claiming the honor for the procuring of this appropriation, who is but recently a member of the State Society.

Now again, to the law which is uppermost in all your minds. The one regulating the Practice of Medicine, which after being passed in 1877, was revised in 1887, and again at the last session of the Legislature, in 1899.

In the effort before the last Legislature it was intended to secure the creation of another Board, to make the examinations of candidates wishing to practice medicine in the State. This feature of the bill presented by the committee failed, as you all know, and a fairly good bill was passed to take the place of the old one, and in this the ardent labors of Drs. J. W. Pettit, H. N. Moyer and G. N. Kreider are to be appreciated.

Its merits and demerits I will not discuss, as that is provided for elsewhere in the program, but I must say that the conditions which confronted the committtee were unique, and the committee will long remember that it was well nigh abandoned by the profession, especially the membership of the State Society. In my judgment I feel that the committee did commendable work, and as I have said elsewhere, it is not to be held responsible for the imperfections of the law, for after a bill is introduced and referred, it is very little subject to outside control, only in an advisory way.

Dr. Vincent Cole, formerly of Wisconsin, has located in Rockford.

THE RELATION OF OUR LAWS TO MEDICAL EDUCATION AND PRACTICE.

BY E. M. ECKARD, M. D., PEORIA.

Regarding the efficiency of our (Illinois) laws relating to medical education, I have little to say. My views are very decided on that point, and to express them, necessitates plain speaking. The fact that the law permits one class of men to obtain a license after a few month's study of bone and muscles, the said license permitting them to treat all manner of disease from a bone standpoint; while it requires another class to complete a study of not less than three years' duration and to master a large number of branches in order to obtain a license apparently no greater in its scope, appears to me ridiculous and plainly an injustice. The law might prove always effectual provided a courageous board of officers, such as the present incumbents, were appointed to conduct the examination, but how about appointments which carry with them political domination? For instance: Mr. Politician might say to Mr. Governor, "Here is my friend, Mr. Bonebreaker, who will shortly appear for examination before your State Board of Health. See that he is successful." Mr. Governor says to Mr. Board of Health, "Mr. Bonebreaker will appear before you for examination in that department of medicine called 'Shampooing.' Read well section 2 of the Medical Act, and see that he receives a license. A word to the wise is sufficient." Mr. Board of Health may not believe Mr. Bonebreaker efficient to practice medicine, but he gets a license which permits him to treat asthma, by making pressure on the cervical vertebræ with his thumb nail or locomotor ataxia by twisting the end of his patient's coccyx. He relieves all cases speedily—of their money.

The law is good enough to cut off such imposters as those who manipulate the so-called Weltmer system, and the State Board cannot license them from the fact that having no qualifications whatever, it is impossible to classify their "department" of med-

icine or surgery. Weltmer should have donned a religious cloak.

The legislature quailed before the onslaught of christian science, and gave them free and unlimited license to commit the deadly sin of omission, only limiting them to ethereal methods Well may legislators and jurors quail before anything religious, however, for they fear a repetition of "Christ before Pilate," yet the sin of omission practiced by the christian scientists is a thousand times more deadly than that of commission practiced by the osteopath.

One of the last States to fall into line in passing medical laws was Michigan, and yet one of the rudimentary suggestions of the Michigan State Board of Health was, "That interests of life and health demand that children and persons too sick to be able to judge of the qualifications of those who are called to treat them, shall have protection against such quacks and charlatans"—meaning "christian scientists." If we cannot dispose of them altogether, something like this incorporated in our laws would do wonders for humanity. What we need is a *single high standard of scientific medical education for everybody*, and a Board of Health with the backbone to see that every applicant's qualifications meet the standard. Illinois has become old enough to do away with child's play.

The men appointed to execute health laws should determine properly such schools to be recognized, and power should be given them to revoke the charter of such institutions as failed to fulfil the standard set. This would do away with the various diploma mills in Chicago and elsewhere, which are an insult to the profession.

The determination of standing of medical colleges should be left to none but medical men. The Supreme Court of Pennsylvania on being appealed to for decision as to the standing of a certain institution, replied: "We have no more right to decide on the degree of medical science in the applicant than on the piety of a congregation or any other religious sect which applies to us to certify to a proposed charter of incorporation; and this might place the degree of Doctor of Medicine in a situation somewhat similar to what was threatened by a celebrated minister of France, who said, 'He would create so many Dukes, that it would be a shame not to be a duke and no honor to be a duke.'" Our requirements should at least be as high as other less civilized countries. Even Spain requires a course of four years and a rigid examination; Portugal five years and reading publicly of a thesis; France four years; Germany four and one-half years and a good preliminary training; England five years; Turkey six years, and poor, ignorant Russia eight years, and besides that, every applicant for a medical degree must have obtained the degree A. B.

In dealing with the relation of our laws to the practice of medicine, we should consider, primarily, that "Every man may use his own property or knowledge to his own advantage so long as it does not injure another." Therein lies the fundamental principles of social government. Government is indeed a social compact. Society does away with the struggle which animates the breasts of animals. Society grants equal rights to all. I give up my liberty to murder you and you give up your liberty to murder me. Violation of my rights or your rights should constitute an offense against the law. Therefore, if the law allows me a license to follow a certain vocation or profession, and I use such a right to the injury or depletion of my fellow-men, that same law should take away the right from me. Before I go farther, I want to say the present Illinois law has many good points. It is defective through no fault of ours, but due to depraved opposition. I have respect for it and its advocates. In fact, faith in its efficiency and power to moderate present evils was so great that we took steps to see it enforced. When we began its enforcement in our quack-bedridden city of Peoria, it brought down a landslide of abuse and personal slander from a back-biting, quack-supported newspaper of Peoria.

These attacks teach a man where his friends are. Suffice it to say, however, that with the aid of a conscientious young at-

torney and the support of the city Medical Society, we have succeeded in ridding our city of all our quacks and irregulars, except those advertisers who hold diplomas and one osteopath, who in some way obtained a license from the State Board.

The whole earth fairly teems with the advertisements of these fellows and their remedies. The bill-boards glow like Italian sunsets; whole editions of dailies, weeklies and monthlies are turned into bulletins for them. We have remedies from the animal, vegetable and mineral kingdom. From the far East and distant South come remedies which in the hands of the charlatans cure disease in ten minutes by the watch. The watch stops usually before the ten minutes are up, however, but not before money has changed hands. Cures by magnetism, electricity, faith, christian science, mental culture, alleopathy, homeopathy, hydropathy, boneopathy and mudopathy. Cures! cures! are everywhere, and yet disease and illness go stalking through the land. Dr. Ratte discovers a cure for consumption; gold-befogged and fool-begotten newspapers herald his self-imagined lies throughout the length and breadth of the land, and many poor sufferers draw near and deposit their hardened gold in his coffers, and retire poorer but rarely wiser men. Disappointment and ruin follow this awful foolhardiness, and yet a people who brag of their practical good sense continue to tolerate it.

Aided from time to time by personal briefs prepared by the State's lawyer during the prosecution of the unlicensed Peoria, I have gathered a few data and have recognized some deficiencies and other creditable points in medical law, as it at present relates to the practice of medicine and surgery.

That part of section 3, providing that none may call themselves doctors except those who have a full license, having fulfilled the highest requirement of the law, separates the black sheep from the white, as far as name separates them. It is good. The section as a whole is, however, a hoax, merely affording a loop-hole for the non-qualified to become legalized humbugs, under the name of osteopaths, etc.

Section 6 is first-rate, only the State Board has not, to my knowledge, tested its power, or if they have done so, probably suffered so much abuse from the newspapers that they found it more pleasant to desist. I will read for your delectation an advertisement which, in my opinion, clearly comes within this section of the law (Vance M. Powell in the *Star*). If this does not constitute unprofessional conduct and show false misrepresentation, then my interpretation of what constitutes unprofessional conduct is sadly at fault.

Section 7 reads in part, "This act shall not apply to any person who ministers to or treats the sick or suffering by mental or spiritual means, without the use of any drug or material remedy." Now this means that the minute the christian scientist places his hand on the patient in a mechanical way, or to assist nature in any way, he or she becomes amenable to the law. So far so good; but how about children of tender age and those persons too sick to be able to judge of the qualities of their treatment?

This clause, if admitted at all, should be amended to cover this vital point. Children should be of such an age and sufficient intelligence to decide for themselves whether they need hocus-pocus or medical attention. It is our duty to protect them. The other fanatics who desire to throw aside the first law of nature are to be pitied, but really do not deserve our attention.

Section 8 is good. It forces those humbugs who go about the country selling colored waters for medicinal purposes to pay dearly for their deception. It is an effectual damper in most cases. It should likewise require each patent medicine concern or advertising doctor to pay $100 per month for each agent sent out to solicit patronage.

The law should more definitely define what constitutes practicing under another physician. Men and women go about the country asking questions from a prepared formula, and report to a licensee in the city, who sends them medicine to cover the case.

This is dangerous to the public health, and should be stopped.

A point of constitutionality was raised against this section, declaring that the point covered was not incorporated in the "Title to the Act."

Article IV. paragraph 13, of Illinois constitution, says: "No act shall embrace more than one subject, and that shall be expressed in the title." Mr. Justice Shope rendered a decision on this point, making it sufficient under the general head of medicine. It was also argued in this manner that as no instruments or medicines were used, the "Title to the Act" did not cover the "profession of Osteopathy." The judge held that the act was not restricted to any particular methods. The only way the osteopath gets around the act now is to appear before the Board claiming to practice a particular system or branch of medicine. His branch soon becomes a tree after he has hoodwinked (?) the State Board. This part of the act was well intended no doubt, but as matters stand, after a license is once obtanied, it is a hard matter to take it up again. A yearly renewal of license would be excellent. It would put all irregulars on the defensive and render the State Board independent of examination fees. It is just as reasonable for a man to make a specialty of treating nervous diseases with medicines without first having taken a regular course, as for the osteopath to treat all diseases by rubbing and twisting with no course at all, and yet the law would not allow the former. The Legislature is not denied the power to make laws to regulate the practice of medicine. We read, "The police power is that power of the State which enables it to promote the health, comfort, etc., of society." It is broad and far-reaching. "In the profession of medicine, as in that of law, so great is the necessity for special qualifications, and so injurious are the consequences that are likely to result from want of it, that the power of the Legislature to prescribe such reasonable conditions as are calculated to exclude from the profession those who are unfitted to discharge its duties cannot be doubted." The object of the law should be to protect the afflicted from the pretensions of the ignorant and avaricious, and its provisions should not be limited to those who follow beaten paths and established usages, but all pretending should be qualified to deal with disease in all its forms, and any department which they might later elect would be intelligently filled. The provisions of the law should render it effective against pretensions, based upon ignorance on the one hand and credulity on the other. The powers of the Board appointed to administer the law should bear a close analogy to school examiners, who have power to revoke licenses for any good cause. A good cause should consist in misstatements and false representation, such as are used by advertising quacks. From the truth we nor the public have anything to fear. There should be a particular statement somewhere as to what constitutes unprofessional conduct.

The duty of prosecution comes clearly under the jurisdiction of the State's attorney, but as they are notoriously delinquent in the discharge of their duty, and will prosecute no one until actually compelled by public clamor; it is a wise provision which provides for a special attorney being appointed. The State's attorney in Peoria endeavored to quash cases brought under the medical law; failing in this he went so far as to defend parties to the suit, but was defeated at every point. I reiterate that the proposed yearly renewal of licenses for a fee of 50 cents is excellent, and would supply the State Board with sufficient funds to carry their work to success and render them independent of the Legislature. We will find it much more easy to get proper laws if we touch not the pockets of the legislators or their constituents.

In summing up, we find that the law should require:

1. A high standard for all. No exceptions.

2. A perfect definition of the "Practice of Medicine."

3. A perfect definition of unprofessional conduct.

4. A yearly renewal of licences.

5. Appointees of the State Board free from political basis.

6. Definite provision for the appointment of attorneys to prosecute violators.

7. The recognition or exemption of no particular school or method, but efficient medical knowledge for all.

We, as honorable members of a noble profession, should see that the matter is presented to the Legislature in its proper light.

EFFICIENCY OF OUR HEALTH LAWS.*

BY S. T. HURST, M. D., GREENVIEW.

After looking over our laws of 1877 to 1899, I notice many changes. The first law was deficient and lenient to under-graduates, with a ten-year clause, and yet it did much good and elevated the average standard of the profession. The itinerant license clause was pernicious, and it seems we can never get rid of it. The discretionary power seemed ample, and yet for some reason, energetic though the Board was, quackery of this kind flourished Palpable frauds were hunted down, prosecuted and many were driven out. This law stood the test of the courts, but the Board never had the united support of the legitimate profession in the State. This Board enforced more general vaccination than I have since seen. Rivalry between, and increase of medical colleges, with an ever increasing political influence, and apathy on the part of the people generally, brought about the necessity for a better law, and consequently at every State Society meeting in Illinois we devote much time to this subject. So far we have made since 1877 but little advancement. The "Cheap John" medical colleges have multiplied, and the irregular and disreputable class of practitioners have increased, and I think many such graduates have found their way not only into practice in the State, but into our local Societies and the State Society as well. If they are legally registered, and apply, they will probably get in all right.

The object of medical practice laws are to prevent all or any from the practice of medicine who are unqualified or dishonorable in character or ethics. Our laws now and previously are not extensive, clear and restrictive enough. If we can enact a law and enforce it, that shall require every applicant for registration to undergo an examination, fair and rigid, by a competent examining board before beginning practice, we should be in a fair way to "kingdom come" in the healing art. But it is a fact much as we deplore it, we are well along in the direction of reducing the hitherto profession of medicine to the level of the trades or callings. The physician is becoming more and more a business man, and we are drifting away from the code of ethics, and everyone to be his own judge of his conduct, and most if not all of our Medical Societies have members who disregard the time honored code. This condition, in my opinion, will grow in our profession until the great influence over the laity once held by the profession is reduced to the level of the merchant or mechanic, if indeed we have not already reached it. If our laws cannot be so constructed and enforced as to hold the licensed or certificated physicians within the rules of the code, we are surely destined to become a trade and not a profession. Then we shall need but have a law that will insure good acquirement in the science of medicine and allow morals to take care of themselves. This condition now largely exists, but is noticed only in extreme cases. The ranks are being recruited annually and liberally. More schemes and devices must be found to find place and earn or make a livelihood. One way to do this is to locate, and either join church or fall in with saloon rounders, or perhaps join a lodge; in other cases manage to get on the teaching force of a medical college, all of which means one may more quickly become self-sustaining. Now I think we are rapidly approaching the time when we shall have no code of ethics, simply because it will not be needed in our business. The

*Read at Jacksonville April 12, 1900. See minutes of meeting in this issue.

public vender of nostrums, "magnetic healer," faith cure fetich, christian science and osteopathic fadist can all come on equal footing before a competent examining board, and if he can successfully demonstrate his scientific attainment in all the learning necessary to a thorough knowledge of medicine, obtain license to practice, and thus become honorable in his calling. But if he fail in the rigid examination, he would seek greener pastures. I have wondered if Illinois could not, after such an ordeal for everyone who is in some way engaged in the healing art, or pretends to be, passed we could not furnish of the surplus, enough to supply the Philippines with a doctor in every community. The laity generally know but little or nothing of our medical or health laws; no newspaper has ever championed the cause. The people are an important party in the case. We have so far failed to reach and inform them, and so we are acting as wards of the people without their consent. And further, it appears that some of our court judges have a very limited idea of any difference between expert scientific testimony and that of a common witness; and there seems to be good reason to believe that if we are ever to have efficient laws, we must begin at the bottom and establish a legal medical standard, and square, and line, and hew to it. Again our present law allows, I believe, a salary to no member of the Board except the Secretary.

No wonder Dr. Moyer said, in urging Dr. Webster for a vacancy on the Board, (Ill. Med. Jour. Jan., 1900), that "the position was purely honorary." We cannot reasonably expect an efficient Board who serve without pay. So finally I conclude.

Our laws are insufficient in that an examination does not apply to all alike.

2. They do not prevent quackery, but instead take from each itinerant a hundred dollars per month, and the Board or funds of State profit by the business.

3. They do not prevent the forementioned frauds and fads from treating the sick and ailing, provided they use no medicines.

4. Because there are already licensed a great number who ethically are unworthy, though some of them may be able men, in high positions.

5. They do not provide against removal from the Board by a whimsical or capricious executive.

6. And greatest of all, our medical laws are not understood by the common people, who are and always will be the backbone of all law in a republican form of government.

Desiring a free discussion of all the subdivisions of our topics here to-day, I have hastily penciled these notes to aid in the direction of the uplift to the medical profession in our State.

EFFICIENCY OF OUR HEALTH LAWS.*

BY H. W. CHAPMAN, M. D., WHITEHALL.

I shall open the consideration of this subject by quoting from an article in The Forum of February, 1899, by Dr. Wyman, Surgeon General of the United States Marine Hospital Service. He says: "Until 1893 there was properly speaking no national system of quarantine. All previous legislation had required only that assistance should be given State or local quarantines; and each State and locality had its own quarantine requirements, some good, some bad; some made strict enough to keep out disease, and others purposely weak, to attract, as it were, commerce to a more favoring port. At least half a dozen conventions were held by State health authorities, both before and after the war of the rebellion, to bring about uniformity; but all efforts failed until Congress enacted the law of 1893. This was a great advance in national quarantine, and under its provisions regulations have been promulgated. But the law requires a demonstration of inefficiency of management on the part of the local authorities, before the national government can assume control at a given port. This

*Read at Jacksonville, April 12, 1900. See minutes of meeting in this issue.

demonstration of inefficiency is precisely what should not be allowed. The law requires the Government to aid State and local authorities in the execution of their own regulations, which are sometimes unwies. It should require the local authorities to aid in the execution of the Government regulations.

In reference to an act amending this law, he says: "This bill provides also, that during yellow fever epidemics the President may prohibit travel and traffic, except under safeguards imposed by national authority." It also "grants authority for travel and traffic after application of the necessary sanitary measures."

Again in speaking of foreign ports: "In times of danger, medical officers of the Marine Hospital Service are detailed to serve in the office of the consul to enforce the Governmental health regulations, and immigrants arriving on this side are by law required to be examined by the medical officers of the Marine Hospital Service to prevent their bringing contagious diseases."

The Marine Hospital thus constitutes a National Health Board, probably more efficient than any other, as its officers are more permanent.

The law establishing our State Board of Health, briefly clothes it with plenary power to establish such rules and regulations as it may deem necessary from a sanitary point of view, and in case of epidemics to establish an efficient quarantine; and clothes it with all the power of the State to enforce these regulations.

Boards of Health of cities and villages are appointed and their duties prescribed by the city council,and the full power of the municipality is delegated to it to enforce its edicts.

According to a recent decision of the Supreme Court of the State of Rhode Island, there can be no appeal from any requirements of a local Board of Health.

It also provides for the inspection of all public buildings and tenement houses in cities of 50,000 and over; as to construction, ventilation, air capacity and plumbing.

It will be seen that on the ability, judgment and integrity of the individuals composing these Boards of Health, depends the wisdom and beneficial character of the rules and regulations adopted, as well as the efficiency of their enforcement.

The efficiency of a good law is always dependent upon its enforcement. The rules and regulations established by such Boards can be amended, abolished or allowed to lapse into innocuous desustude, at the pleasure of the creating power, thus giving an element of elasticity that should cause the highest amount of efficiency, without working the individual hardships of an inflexible statute.

As to who shall compose these Boards, the statute is silent; but in all cases it is safe to assume that they are the creatures of politics.

So far as my own observation enables me to judge,, they are usually chosen from among the members of the city council, and are almost invariably men of no knowledge of sanitary requirements. It is true that it sometimes happens that they have the idea that cleanliness is desirable, and fortunately this goes a great way. But some men's idea of cleanliness is governed entirely by their senses of sight and smell. If the source of offense is beyond reach in this manner, they assume it does not exist.

Now, the truth is, both these senses may be grossly offended without the slightest danger to health, and both may be carried around with great enjoyment in place sof great danger to health.

In all of the smaller cities where well water is used for drinking purposes, cess pools flooded from roofs where the water is designed to soak away into the earth, smaller excavations which when full are covered with earth, and the house over it moved to a new excavation, as is so frequently practiced, pollute the earth and the water going to wells. The establishment of water closets with individual, and probably illy constructed drains, emptying into some near by stream or gully, are sources of great danger and should be prohibited.

In such small cities and towns every out house should have an excavation of sufficient size to contain the family's excrement for one year; this should be bricked up and cemented water tight; every spring at the city's expense and under direction of the local health officers, these vaults should be cleaned out, the contents carried to a remote place where a sufficient excavation had been made, there mixed with earth and lime and allowed to remain undisturbed for a year or more, when it could be taken out and used for fertilizer without danger or offence, and greatly to the advantage of growing crops. By this means the subsoil in the towns would be kept pure, and likewise the water going into the wells.

A state law that permits the turning of the sewage of a great city into a water course, and worse, reversing the current of a river in order to accomplish this, thereby endangering the health and lives of thousands of its citizens, besides those of other states, is criminal.

In the matter of prevention of contagious diseases, city ordinances and rules of health boards, usually look tolerably well on paper, but to enforce these provisions is another matter.

The average American citizen is very willing to be protected from the contagion of his neighbor, but when it comes to protecting the neighbor from his contagion, that is an entirely different matter, and he is very loath to have his children excluded from the public schools even for a short period, and the physician who enforces this quarantine is not apt to increase his popularity thereby. In mild cases of diphtheria, scarlatina and variola, diseases which are very frequently called by other names by the attending physician at the commencement of epidemics, also when the attendant chooses to regard membranous croup as non contagious, there is usually ample opportunity for the spread of these diseases among the susceptible.

A case illustrating the aversion of the average American citizen to being inconvenienced for the benefit of others, is well impressed upon my mind.

A first case of diphtheria occurring on a certain season proved fatal. It was very easy to quarantine that family, and secure an efficient disinfection of the premises, as there were other children in the same family, and they escaped.

The next case was very mild and was a man, the father of a large family of young children. He was confined to the bed only a few days. I promptly excluded his children from the school, and when fully recovered directed him how to disinfect his house. He thought that unnecessary and neglected to do so.

Soon after the children of this family were allowed to return to school, they began dropping out one at a time for a few days each, and then returning to school, showing evidences of having been sick, until it had gone through the whole family.

About this time my own little girl was taken with diphtheria and came very near dying. My boy, a few years younger, was taken with the same disease, but had it in a very mild form.

During the illness of my daughter, this man came to me, frankly admitting that his children had all been having sore throats, with the same white patches (his wife said) as were in his throat when I had attended him.

He had not consulted me about his children, for he well knew I would exclude them all from school; in fact, they had had no physician, but fearing my daughter would die, his conscience reproached him and he came to express regret for not having heeded my advice.

I think it will stand as a fact, that the chief difficulty in the way of enforcing all health regulations, is the opposition of the people who are to be benefitted thereby.

The same is probably true of efforts to regulate the practice of medicine. A careful selection of the material of which to make our health boards, would seem to be of the first importance; after that we must have an increased amount of intelligence

among the people comprising a community, and above all, an absence of selfishness in the individual, with an earnest desire on his part to do that which will promote the greatest amount of good for others; but this is all that is required to make Heaven.

AMERICAN MEDICAL ASSOCIATION.

Will meet in Atlantic City, N. J., June 5, 1900, and I. S. M. S. delegates elected at this meeting. The rate will not be more, and likely less, than one and one-third fare for the round trip, certificate plan. Those desiring to go on "Journal Special," from Chicago can leave Chicago Sunday afternoon at 1:30 on "Journal Special," without change, over the Pennsylvania Short Line, arriving at Atlantic City, Monday evening at 6 o'clock. Tickets and sleeping car reservations can be had of Dr. F. C. Greene, 46 Wabash Avenue, Chicago, Illinois.

NOTICE.

A volunteer paper will be read by Dr. A. Goldspohn, Chicago, on "Cases of Intestinal Obstruction after Vaginal Hysterectomy and after Pelvic Abscess," and also a volunteer paper by Dr. Richard Dewey, Wauwatosa, Wis., on "Mental Therapeutics in Nervous and Mental Diseases."

R. R. FARE.

The various Passenger Associations controlling lines to Springfield have granted a rate of one and one-third to members attending. This rate is secured on the condition that the attendance will be one hundred and that each member secures a certificate from the local ticket agent on going. Do not fail to secure this certificate which must be endorsed by the Secretary, and stamped by the joint agent who will be present the 16th and 17th.

WHY PEOPLE GO TO SPAS.—In an article in Nature Mr. Edgecombe gives an account of the action of baths on the human system. He says the changes produced are mainly the result of changes that take place in the circulatory system by the thermal, chemical, or mechanical action of the baths. The blood pressure is markedly affected. Some procedures, such as the action of cold water or massage to the limbs, raising it, while others, such as dry or moist heat, lowering it. "An intelligent use of bathing as a therapeutic agent can so act on the circulatory system as to regulate the blood pressure, restore the normal mobility of the vessels, promote the interchange of tissue fluid, and profoundly modify nutrition."

SUBSTITUTION.

The Filipino soldier fell upon his knees. "O, Senor!" he cried. "Have you no mercy?"

Private Smith of the 'Steenth Volunteers, who had been a drug clerk at home, looked down upon him coldly.

"No," he replied, from sheer force of habit, "but I have something just as good."

Thereupon he gave it to him—in the neck.—Philadelphia Press.

SCHENK'S THEORY IN PRACTICE.

A Chicago chemist has been trying Schenk's rules for the production of sex, with what he considers a successful result. He and his wife desired a male child, and the expected infant's sex turned out accordingly. Considering the fact that the chances of this being the case were about 104 to 100 in the natural order of events, this case seems hardly conclusive, but it appears to have excited enough local interest to call in the reporters and bring out one or two interviews with physicians, who are judiciously noncommittal. If important succession or even dynastic contingencies depended on this birth, it might have received less attention, and perhaps we may consider it an evidence, gratifying rather than otherwise, of the popular interest in a scientific theory.—Journal A. M. A.

The Illinois Medical Journal

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Committee on Publication:
E. W. WEIS, M. D., Chairman, Ottawa.
H. N. MOYER, M. D., Chicago.
G. N. KREIDER, M. D., Springfield.

All communications should be addressed to E. W. WEIS, Secretary, Ottawa, Ill.
All remittances for subscriptions should be sent to Dr. G. N. Kreider, 522 Capitol Ave., Springfield, Ill.
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Springfield, Ill., May, 1900.

NOTICE.

Through a misapprehension the date of the forthcoming meeting was published May 22d, 23d and 24th, and some of the stationery used by the officers was also erroneously dated. Note the fact that *the date is May 15th, 16th and 17th.*

ORGANIZATION.

A word about the preliminary meeting called by Dr. Pettit for May 14th. It is earnestly desired that the attendance be large and representative. The object of this meeting is to devise plans for better organization, which is the crying need of the profession.

The following from the Philadelphia Medical Journal so clearly states the case, we quote at length:

"It may be that we shall be obliged to wander for a few years longer in the desert of disorganization, but it is fair to predict, that early in the twentieth century a Moses will be found who will lead the profession of this State into the promised land of union and strength. That this consummation is one devoutly to be hoped for is shown by the recent statement of a high official in the local government, who said recently in my presence, at a public dinner, that doctors, in his opinion, had no influence. It has been a frequent remark among the members of our Legislature, that if the doctors would only agree on almost any measure, it would be quickly made a law, but their proverbial lack of harmony made legislators backward about advocating or passing medical bills coming before them for consideration.

"Let us first close the breaches in our own ranks, and pull together during the coming years for the common good in our national, State and county associations, making it known that all educated and reputable physicians, whether or not they hold to a dogma, are welcome to join our ranks; then will we regain the influence and respect which, during these years of dissention, we have largely lost. The famous Musketeers, of Dumas, would have accomplished but little had they not adopted, and lived up to their motto, of 'all for one, and one for all.' Let us hope that when the time has arrived for all educated physicians in this State to join hands, the motto of the larger and reorganized society may be, 'the profession for the individual practitioner, and the individual practitioner for the profession.'" P.

COME!

The forthcomnig meeting, which convenes the 15th inst. at Springfield, presents special inducements for attendance by the members of the medical profession of Illinois.

This marks the half century milestone in the life of the Society, and at no time in its history has the interest of the profession generally or of its members in particular been so pronounced as at present.

An extraordinary effort has been put forth by the profession of Springfield, and

the Committee of Arrangements has assiduously striven to make this the Jubilee Meeting a memorable one.

The officers of the Society have labored hard and eagerly to present a scientific program that will prove of great benefit, and that thereby everyone in attendance will carry home with him the knowledge gained that will more than compensate him for the time and money spent.

The special Jubilee features will be confined to the after-dinner talks on Wednesday evening, so that there will be no interference with the scientific and business portions of the meeting. And at this post-prandial feast, think of the pleasure of listening to those grand old pioneers who have labored so faithfully in the ranks—Boal, Davis, Edmunds, Ingals, Thompson, Hollister and Cook. Boal and Thompson are the only ones left of the original few who met and organized this Society fifty years ago. Of the vicissitudes and hardships encountered in going to that meeting they will tell us. The others will give us some of their experiences and reminiscences that will be interesting and profitable.

Come! Every doctor who has the love of the medical profession implanted in his heart should come, and by our presence show these stalwarts that we honor and love them for their devotion to medicine. W.

PERSONALS.

Prof. N. Senn will attend the meeting and take an active part in the discussions occurring in the surgical section.

A very interesting exhibition will be given by Dr. L. Blake Baldwin, of Chicago. Stereoptican views of colored photography in skin diseases. This exhibition will be in the Sunday school room of the First Methodist church, Wednesday, May 16th, at 5:30 P. M.

PROGRAM.

ORDER OF PROCEEDINGS.

FIRST DAY—TUESDAY MORNING, 10 A. M.

I—Call to order by the President,
H. N. Moyer, Chicago.
II—Invocation,
Rev. Jay Elwood Lynn, Springfield.
III—Address of Welcome,
Lt. Gov. W. A. Northcott.
IV—Response by the President.
V—Report of the Executive Committee,
The President (ex-officio) Chairman.
VI—Report of Committee of Arrangements.
E. P. Bartlett, Chairman.
VII—Report of Committee on Registration
George N. Kreider, Chairman.
VIII—Miscellaneous Business, Communications.
IX—10:15 a. m. Call to order of Section One.
X—Address, Papers and Discussions.

FIRST DAY—AFTERNOON

XI—12:30 p. m. Adjournment.
XII—1:30 p. m. Call to order. Miscellaneous Business.
XIII—2:00 p. m. Call to order of Section One to resume program.
XIV—Report of Committees.
XV—6:00 p. m. Adjournment of general session after announcements by President and others.

FIRST DAY—EVENING.

At the Christian Church.

XVI—8:00 p. m. Call to order by the First Vice-President, J. T. McAnally, Carbondale.
XVII—Address of the President, "Tendencies of Modern Medicine."
H. N. Moyer, Chicago.
XVIII—Address of Section Three,
A. C. Cotton, Chicago.
XIX—Announcements, etc. Adjournment.

SECOND DAY—WEDNESDAY MORNING

I—8:30 a. m. Call to order by President.
II—Announcements, Communications, etc.
III—Announcements of the Members of the Nominating Committee.
IV—Reports of Officers and Standing Committees—
(1) Committee on Publication,
Edmund W. Weis, Ottawa, Chairman.
(2) The Treasurer's Report,
George N. Kreider, Springfield.
(3) Committee on Medical Societies,
C. W. Hall, Kewanee.
(4) Committee on Medical Legislation,
J. W. Pettit, Ottawa.
(5) Committee on Necrology and Biography,
John H. Hollister, Chicago, Chairman.
(6) Committee on Society History,
Robert Boal, Lacon, Chairman.
(7) Auditing Committee,
J. T. McAnally, Carbondale, Chairman.
V—9:00 a. m. Call to order of Section Two.
VI—12:30 p. m. Adjournment.

SECOND DAY—AFTERNOON

VII—1:30 p. m. Call to order for the Continuance of Section Two.
VIII—6:00 p. m. Adjournment in general session.

SECOND DAY—EVENING.

At the Parlors of the Leland Hotel.

IX—7:15 p. m. Reception and Annual Dinner, Jubilee Features, Toasts and Responses.

THIRD DAY—THURSDAY MORNING

I—8:30 a. m. Call to Order.
II—Miscellaneous Business.
III—Report of Committee on Nominations.
IV—9:30 a. m. Call to order for the Continuation of Section Two.
V—11:00 a. m. Call to order of Section Three.
VI—12:30 p. m. Adjournment.
VII—1:30 p. m. Call to order for the Completion of Section Three.
VIII—Report of Standing Committees, continued.
IX—Reports of Special Committees.
X—Unfinished and Miscellaneous Business.
XI—Induction of the President-elect.
XII—6:00 p. m. Final Adjournment.

PROGRAM

ILLINOIS STATE MEDICAL SOCIETY

SECTION ONE.

Practice of Medicine, Medical Specialties, Materia Medica and Therapeutics.

Chairman.....H. C. Mitchell, Carbondale
Secretary.....Charles D. Center, Quincy

Address, A. C. Corr, Carlinville.
"Medicine, or Surgery; Are They Separable? If Not, Which is the Science, Which the Specialty?"

1. Chronic Gastritis, Joseph Brayshaw, Berlin
2. Chorea, with Report of a Case, D. M. Knapp, Mendon
3. Myxedema, with Report of Cases, Frank Billings, Chicago
4. Our Milk Supply; Some Observations at Home and Abroad, S. E. Munson, Springfield
5. Typhoid Fever in Southern Illinois, Ford S. Dodds, Anna
6. Nephritis, with Report of Three Cases, J. W. Kelly, Springfield
7. Concerning the Simulation of Abdominal Diseases by Pleurisy, Jas. B. Herrick, Chicago
8. Is Pneumonia Contagious? J. T. McAnally, Carbondale
9. Pneumonia and Its Treatment, J. N. Black, Clayton
10. On the Evils Resulting from the Naming of Diseases for Individuals, N. S. Davis, Sr., Chicago
11. Diagnosis of Tumors of the Spinal Cord and Its Membranes, F. P. Norbury, Jacksonville
12. Cerebral Palsies of Childhood, J. C. Gill, Chicago
13. Every Day Headaches, Hugh T. Patrick, Chicago
14. Nature and Treatment of Locomotor Ataxia, Elbert Wing, Chicago
15. California as a Health Resort, John H. Hollister, Chicago
16. Have We Got the Smallpox? H. C. Mitchell, Carbondale
17. A New Treatment of the Opium Habit, Archibald Church, Chicago
18. Complications and Sequelæ of Scarlet Fever, M. S. Marcy, Peoria
19. Middle Ear Massage, James B. Taylor, Bloomington
20. Rheumatic Diseases of the Eye, H. W. Woodruff, Joliet
21. The Imbibition of Water in Relation to Some Forms of Disease, W. T. Moffitt, Williamsville
23. Chronic Diarrhœa in the Aged, W. L. Irwin, Plymouth
24. Chylous Ascites; Report of Cases, R. J. Christie, Jr., Quincy
25. Anæsthetics, W. H. Maley, Galesburg
26. Anomolies and Monstrosities, J. N Nelms, Taylorville
27. Sepsis, Francis Reder, St. Louis, Mo
28. Smallpox; Its Differential Diagnosis, J. C. Sullivan, Cairo
29. The Increase of Paresis, Samuel Dodds, Anna
30. Leukæmia and Pseudo-Splenic Leukæmia, E. J. Brown, Decatur

SECTION TWO.

Surgery, Surgical Specialties and Obstetrics.

Chairman.....Denslow Lewis, Chicago
Secretary.....Carl E. Black, Jacksonville

Obstetric Symposium.

Address—J. Clarence Webster, Chicago.
"The Pathology of Delivery."

(a) The Application of the Forceps, J. E. Allaben, Rockford
(b) The Technique of Version, J. F. Percy, Galesburg
(c) The Management of Impacted Cases, Henry F. Lewis, Chicago
(d) The Mutilating Operations, C. S. Bacon, Chicago
(e) Symphyseotomy, G. N. Kreider, Springfield
(f) Cæsarean Section and Porro Operations, C. D. Reed, Chicago

1. The Treatment of Appendicitis by Perineal Incision in Males and Vaginal Incision in Females, E. M. Sutton, Peoria
2. Some Interesting Details Regarding Septic Diseases of Women, F. Henrotin, Chicago
3. The Treatment of Ankle Sprains, E. H. Ochsner, Chicago
4. Gall Stones, J. W. Hairgrove, Jacksonville
5. Sterility in Men, Emil Reis, Chicago
6. The Ambulatory Treatment of Fractures, E. H. Lee, Chicago
7. Congenital Dislocation of the Hip, John Ridlon, Chicago
8. Surgical Introspection, H. W. Chapman, Whitehall

9. Ptosis of the Liver,
A. I. Bouffleur, Chicago
10. Causations of Septic Conditions Following Surgical Operations,
Waldo Fisher, Alton
11. A Gynæcological Examination,
C. C. Hunt, Dixon
12. The Present Treatment of Syphilis,
Wm. Allen Pusey, Chicago
13. Acute Hemorrhagic Encephalitis,
C. Dewey Center, Quincy
14. Operative Technique of Very Large Inguinal Herniæ, M. L. Harris, Chicago
15. The Use of Pedicle Flaps for Plastic Surgery of the Hand and Arm,
W. E. Schrœder, Chicago
16. The Aseptic Conduct of Labor,
J. B. De Lee, Chicago
17. Renal Calculi, R. A. Kerr, Peoria
18. Early Nephrotomy,
A. H. Ferguson, Chicago
19. The Treatment of Prostatic Enlargement, with Special Reference to Bottini's Operation, F. Kreissl, Chicago
20. Hysterectomy for Infection Following Labor, Carl Wagner, Chicago
21. The Diagnosis and Treatment of Adenoids,
E. T. Dickerman, Chicago
22. Sympathetic Ophthalmia,
A. L. Adams, Jacksonville
23. Syphilis of the Eye,
W. H. Wilder, Chicago
24. Gonorrhœal Conjunctivitis,
A. T. Haight, Chicago
25. Chronic Inflammation of the Tear Passages,
W. O. Nance, Chicago

Symposium on Rectal Diseases.

(The Symposium on Rectal Diseases will be the special order of business for Thursday morning.)

(a) The Diagnosis of Diseases of the Rectum,
J. Rawson Pennington, Chicago

(b) The Pathology and Treatment of Fistula in Ano, A. E. Halstead, Chicago

(c) The Treatment of Prolapse of the Rectum,
Weller Van Hook, Chicago

(d) The Treatment of Hæmorrhoids,
N. H. Henderson, Chicago

L. Blake Baldwin, of Chicago, will exhibit Stereopticon Views of color photography of Skin Diseases in the Sunday School Room of the First Methodist Church, Wednesday, May 16, at 5:30 p. m.

SECTION THREE.

Etiology, Hygiene, State Medicine and Medical Jurisprudence.

Chairman.....George F. Butler, Chicago
Secretary.....W. J. Fernald, Rantoul

Address—A. C. Cotton, Chicago.
"Jeremiah XXXI. 15."

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2. The Relation of the State to the Dependent,
J. B. Maxwell, Mt. Carmel
3. The Criminal and His Kin; How Can We Decrease Their Numbers?
G. S. Bower, Galesburg
4. Mental Overwork and Lack of Interest in Physical Development of and Hygienic Care of School Children, a Menace to the Future of the Race, E. A. Edlen, Moline
5. The Scientific Need of Legislation Enforcing County Registration of Syphilitics,
James E. Coleman, Canton
6. Syphilis in Relation to the Dental Profession, L. Blake Baldwin, Chicago
7. A Further Consideration of State Medicine and Sanitation, A. C. Corr, East St. Louis
8. The State Care of Consumptives,
John A. Robison, Chicago
9. The Epileptic Colony,
D. R. Brower, Chicago
10. Sanitarium Treatment of Pulmonary Tuberculosis in Illinois,
Florence Hunt, Chicago
11. Observations as to the Efficiency of the Chicago Health Department Method of Fumigation, Adolph Gehrman, Chicago
12. The Relation of the Physician to the Public School, Katherine Miller, Lincoln
13. Medico-Legal Status of Abortion,
O. B. Will, Peoria
14. If the Cause is Removed, the Cure Will Follow, W. J. Chenoweth, Decatur
15. What Shall the Harvest Be?
R. H. Henry, Peotone
16. Slight Ailments, L. L. Leeds, Lincoln
17. The Elimination Function of the Kidneys in Health and Disease,
J. Palmer Matthews, Carlinville
18. Practical Observations on the Chemical Effects of a Few of the Older and Some of the Newer Remedies
E. L. Herriott, Jacksonville
19. Preventive Medicine and the Higher Medical Education,
E. B. Montgomery, Quincy

ABSTRACTS OF PAPERS TO BE READ.

SECTION ONE.

Dr. N. S. Davis, Chicago, "On the Evils Resulting From Naming Diseases for Inividuals."

1. It is very inconvenient.
2. It is meaningless, i. e. it conveys no information concerning the causes, location, nature or results of the disease.
3. It is unscientific. Disease is necessarily a deviation from the healthy condition of function or structure of some part of the whole of the living body. Consequently its name should be suggestive of the nature, and when possible, also of the chief seat of the disease.

Irwin, Plymouth, "Chronic Diarrhœa in the Aged."

1. Its resistence to treatment as regards time.
2. Difference in forms and peculiarities.

Dr. J. C. Sullivan, Cairo, "Smallpox, Its Differential Diagnosis."

Modified or mitigated smallpox can be readily and with certainty differentiated from varicella. May find modified and malignant in same group. Malignant can result from modified contagion.

Dr. J. N. Black, Clayton, "Pneumonia and Its Treatment."

Varieties as to seat and causation, with appropriate management and treatment. No belief in panaceas for pneumonia. Doubtful benefit of cold pack. Judicious selection of remedies at proper time necessary. Relief in use of drugs whose physiologic action produces condition which is diametrically the opposite of the condition for which they are given. Finds use for blisters, poultices and cotton jackets.

Dr. F. P. Norbury, Jacksonville, "Diagnosis of Tumors of Spinal Cord and Its Membranes."

1. General symptoms of tumors of cord. 2. The differential diagnosis in which will be considered, caries of the spine, cervical meningitis, cervico-occipital neuralgia, myelitis, acute, subacute and chronic.

2. The nature of the tumor, tuberculosis, syphilitic and sarcomatous growths of, or impinging upon the cord.

Dr. John N. Nelms, Taylorville, "Anomalies and Monstrosities."

1. Presenting an eight months foetus with hydrocephalus, spina bifida, syringo-myelocele, genu varus, talipes varus, talipes calcaneus, umbilical hernia with protrusion of intestines, liver and spleen, imperforate anus, complete absence of sexual organs, absence of auditory canal, mammary glands in pubic region.

2. Reasons for the causes of these abnormalities.

Dr. S. E. Munson,, Springfield, "Our Milk Supply, Some Observations at Home and Abroad."

The various modifications of milk for infants and invalids in Europe. The same features in this country. How best secured for travel. The most successful modifications of milk for infant feeding. The best method for securing good milk. The clinical importance of pure milk.

Dr. F. S. Dodds, Anna, "Typhoid Fever in Southern Illinois."

Typhoid fever as seen in the southern part of this State, or in a malarious district, is rarely pure typhoid. A large majority of the cases of so-called typhoid in Southern Illinois are adulterated with malaria.

Characteristic symptoms of typhoid wanting.

Dr. A. C. Corr, Carlinville, Address in Medicine; Section 1. Medicine? Or Surgery? Are they separable? If not, which is the science? Which the specialty?

Synopsis—Medicine and surgery are inseparable in practice except in the extremes. Medicine is a science and embraces all that come under the head of the "Practice of Medicine."

The tendency is strong to be enticed by the glamor of surgery for its mere physical appearances, and to forget that tissues have properties that may by a classified derangement constitute a disease, and that these properties may be modified by medicines so as to correct the aberration and cure the disease without destroying any known germ of antidoting a disease or ptomaine.

If surgery arrogates much, medicine must become in a restricted sense a specialty. The well informed general practitioner is the only one who can comprehend the whole situation and is the safest one to trust, and is the best exponent of the science and practice of medicine. No one is competent to practice a specialty till he or she has practiced and studied general medicine for at least ten years.

Dr. Frank Billings, Chicago, "Myxedema, With Report of Cases."

1. Histories of cases of myxedema in the practice of the writer.
2. History of the disease.
3. The pathology and etiology of the disease recognized by animal experiments and by surgical and medical experience upon man.
4. The diagnosis and prognosis.
5. The treatment.

Dr. R. J. Christie, Jr., Quincy, "A Case of Chylous Asites."

1. Reference to editorial in Journal of the American Medical Association Feb. 3, 1900
2. Review of literature of subject.
3. Description of case.
4. Discussion of points in case.
5. Conclusions.

Dr. J. W. Kelly, Springfield, "Nephritis."

Essayist emphasizes its prevalence, alludes to reasons for this prevalence, and cites illustrations.

The importance of an accurate and early diagnosis

Report of three cases.

Dr. Jas. Brayshaw, Berlin, "Chronic Gastritis."

1. Diagnosis.
   - (a) Symptoms.
   - (b) Examination.
     - I. Physical.
     - II. Chemical.
2. Treatment.
   - (a) Dietary.
   - (b) Medicinal.
   - (c) Mechanical.
3. Reports of illustrative cases.

Dr. James B. Herrick, Chicago, "Concerning the Simulation of Abdominal Disease by Pleurisy."

Pain is often referred to a point distant from the seat of the primary trouble. So in pleurisy pain is often referred to the abdomen. According to the location of the pain and the accompanying symptoms, different diseases of the abdomen may be simulated e. g., appendicitis, gallstones, intestinal obstruction, hemorrhagic pancreatitis.

Diagnostic points.

Dr. Hugh T. Patrick, Chicago, "Every Day Headaches."

Every day headaches are those of—

1. Migraine.
2. Neurasthenia.
3. Infection and intoxication. (Fever, constipation, indigestion, alcohol, etc.)
4. Eye strain.

Of these 3 and 4 are very briefly considered.

In the experience of the author 1 and 2 are incomparably the most frequent.

The headache of neurasthenia is not really a head pain, but is nearly always rather a cephalic distress. Peculiarities, causes, treatment. Illustrative cases.

Migraine, if not the most frequent headache, is the most frequently misunderstood. Prevalence, nature. What it is not. Causes, peculiarities and variations, diagnosis, treatment. Illustrative cases.

Dr. W. J. Fernald, Rantoul, "Principles of Immunity."

1. The nearest approach to a scientific explanation of acquired immunity is Metschnikoff's theory of Phagocytosis.
2. The phenomenon of immunity is a biological one, and must be explainable by the law of Evolution.
3. The biological factors involved are on the one hand, the action of environing forces destructive or constructive, on the protoplasm of the cell. On the other hand, the reaction of the protoplasm on the environing forces.
4. Immunity is perfect physiological resistance.
5. Diseases conferring immunity against themselves and reasons therefor.

Dr. H. W. Woodruff, Joliet, "Rheumatic Diseases of the Eye."

Not strange that the eye should be subject to rheumatism, being composed of tissues so prone to the disease.

As the sclera repressing fibrous tissue.

The iris and cilliary body and extrinsic muscles representing the muscular structure.

The choroid representing the vascular system.

Acute articular rheumatism rarely affects the eye.

The term "rheumatism" also represents certain symptoms in structures not connected with the joints, as muscular rheumatism.

Causes—Hereditary traits. Rheumatic diathesis.

Exciting causes are exposure to cold and muscular exertion.

Certain diseases of the sclera and iris particularly associated with the rheumatic tendency.

Episcleritis.

Scleritis.

Iritis.

The importance of eliminating syphilis as a cause.

Dr. D. M. Knapp, Mendon, Ill., "Chorea."

Report of a case of chorea in girl of sixteen years of age, showing gradual progression to a spasmodic tabes dorsalis with knee pain, gastro-intestinal and respiratory crisis; blepharospasm, nystagmus and a gradual extension to the lower extremities, interfering with motility.

Dr. W. T. Moffitt, Williamsville, "The Imbibition of Water in Relation to Some Forms of Disease."

Water is one of the oldest of therapeutic agents. It has been used externally and internally, hot and cold.

The body is composed of water in the proportion of between two-thirds and three-fourths. The fluids of the body are almost wholly water, the tissues largely so. The fluids of the body carry on vital functions. A certain amount of water is necessary for these functions.

Six grains of solids per pound of body weight should be eliminated by kidneys daily in urine of about 1020 Sp. Gr. This requires certain definite quantities of water to pass through the organism and out by way of kidneys.

Drinking cold water increases arterial tension, reduces bodily temperature, increases elimination and aids digestion. Warm water is a simple and usually effective emetic. Hot water sipped an hour before meals highly recommended for gastritis. Drinking cold water recommended in typhoid and other fevers.

Constipation, renal insufficiency and deficient perspiratory elimination accompany, if they are not largely responsible, for many diseases as migraine, muscular rheumatism, epilepsy, insanity, hysteria, chlorosis, asthma and some gynecologic disorders.

These patients as a rule drink too little water. Water loaded with products of tissue katabolism is retained in the tissue and causes auto-intoxication.

To maintain health about four or five pounds should be imbibed daily. Where elimination is to be increased an additional quantity of water should be imbibed daily.

Water is best diuretic, diaphoretic and laxative. Physicians should instruct their patients as to the importance of drinking physiologic amount of water.

Dr. M. S. Marcy, Peoria, "Complications and Sequelæ of Scarlet Fever."

1. Complications to be dreaded for lack of a positive antagonist to micro-organism, streptococcus.
2. The necessity of watching patient after acute symptoms subside for fear of complications.
3. What are the complications?
4. History of a very severe case with all the complications following a mild attack.
5. According to my observation complications are apt to be worse in children who inherit weak constitutions from parents who have suffered from syphilis, tuberculosis, and especially children from old fathers; have never read anything in reference to last class.

SECTION TWO.

Dr. Willis O. Nance, Chicago, "Chronic Inflammation of the Tear Passages."

Frequency and importance of lachrymal disease. Anatomy and physiology of the tear conducting apparatus. Symptoms of chronic dacrystitis. Epiphora. Diagnosis—(a) mucocele, (b) patency of passages. Etiology—Importance of nasal disease as a cusative factor. Constitutional disease. Treatment—(a) Relief of morbid conditions of the nasal chamber; (b) instillations, manipulation and injections; (c) dilatation; (d) choice of canaliculus and operation of slitting; (e) probes; (f) styles and canulæ; (g) extirpation of sac.

Dr. C. Dewey Center, Quincy, "Acute Hemorrhagic Encephalitis."

A case of multiple terminal twig hemorrhage of the cortical system of the right side of the brain followed by transient left hemiplegia petit mal and later generalized convulsions. Operation. Recovery.

SECTION THREE.

Dr. G. S. Bower, Galesburg, "The Criminal and His Kin; How Can We Decrease Their Numbers?"

The habitual criminal regarded as our diseased. His nemotic ancestry and relations, the insane, paupers, inebriates, etc. Some of the causes producing them. The slight deterrent effects of punishment. The good which may be done among them by improved sanitary and hygienic measures.

Dr. W. J. Chenoweth, Decatur, "Remove the Cause and the Effect Will Cease."

This axiom was chosen as a test for the treatment of tuberculosis of the lungs.

Assuming that the disease is the result of an attack of the tubercle bacillus on a susceptible lung, there is necessarily a combination of two factors, neither of which, if kept from the other, could have produced the disease.

The result of the combination is evinced by an alteration of the organic and functional processes of the lung. The only conceivable method of relieving the lung is to render it unfit food for its enemy, which can only be done by bringing it up to a standard of health.

Dr. R. H. Henry, Peotone, "What Shall the Harvest Be?"

All schools, private or public, should be under strict medical inspection—teachers and pupils alike. All tuberculous suspects should be tested with tuberculin.

School buildings and premises should be thoroughly disinfected at the close of the school season and again at the beginning of each term. Floor should be scrubbed at least once a week with a disinfectant solution. There should be a medical health officer for each school, who with the board of directors constitute the School Board of Health. Teacher must know how to take pulse and temperature and note symptom of the common ailments in children.

Dr. E. L. Herriott, Jacksonville, "Practical Observations on the Clinical Effects of a Few of the Older, and Some of the Newer Remedies."

Exercising careful judgment of remedies in a given case, with reference to temperament, constitutional defects and other characters of the case. A proper selection of antiseptics to the case in point, mode of application, administration, etc., from the myriads of substances now foisted on the profession, of anesthetics, anodynes, alteratives and of drugs generally, some of the coal-tar derivatives, animal extracts, etc.

The application of other therapeutical remedies, aside from medicines. The use of electricity in the hands of the general practitioner. The unfortunate discarding of the lancet by the profession almost to its entirety.

Florence W. Hunt, M. D., Chicago, "Sanitarium Treatment of Pulmonary Tuberculosis in Illinois."

The responsibility of the State from the protective economic and humane point of view. The mortality of pulmonary tuberculosis. Social factors operating in Illinois to increase the mortality. The principle embodied in the conception of the sanitarium. Brief resume of the sanitarium movement.

Objections that may be raised against the location of a sanitarium in Illinois.

Location, construction and equipment of the sanitarium. General resume.

Katharine Miller, M. D., Lincoln, "The Relation of the Physician to the Public School."

By virtue of the increasing recognition by the public of the need for proper sanitation in school buildings the physician has a closer relation to the schools than the average citizen; and this is emphasized as the public recognize that the professional training of the doctor fits him for the oversight of these things and makes him a skilled adviser.

Aside from this the spirit of the profession compels the physician's interest in these questions, and with these the subject of arrest and prevention of contagious diseases among children, and the care of the body, including exercise and bathing, and examinations as to defects in hearing and sight in their relation to mental development, come within his province. Those who have studied these things must realize most clearly how much may be done for the rising generation by the supervision of the physician. To secure the opportunity for this requires an enlightened public sentiment, and here the physician has a chance to use voice and pen to advantage in giving information.

A good number of communities have shown their appreciation of the facts by selecting physicians as members of their boards of education, and in the greater number the other members have shown a disposition to yield large deference to professional opinion on all questions where it should have weight.

Results are seen in the improved conditions of school buildings, leading to better health of the children, the enforcement of vaccination, and the general enlightenment of the community as to the need and effects of school hygiene.

As a matter of civic duty due from those citizens specially fitted to render such service physicians should interest themselves in school sanitation. They should be informed as to methods of heating, lighting and ventilating school rooms, as to occasions for quarantine, as to the effects of defective sight and hearing, as to the need of methods of cooking and manual training, school gymnasiums, amount of work to be required at various ages, adaptation of building, blackboards, etc., to the children's needs.

E. A. Edlen, A. B., B. S., M. D., Moline, Ill., "Mental Overwork and Lack of Interest in Physical Development and Hygienic Care of School Children, a Menace to the Future of the Race."

The present system of education in public schools tends to develop the mind at the sacrifice of bodily health and physical development.

The school teacher takes pride developing the intellectual faculties and ignores the physical well-being of the child. No discrimination in favor of the weak or backward children is practiced. Subjects beyond the grasp of the intellectual faculties of the child are studied. The reason of backwardness and inability is seldom looked into, to the detriment of many children. The teacher concerns himself with very little outside his studies.

School hours are too long and lessons made uninteresting. Children are unable to fix their attention on any subject but for a short time, still they must sit still during hours at a time, in an over-crowded room, in an uncomfortable position trying to learn an unintelligible lesson in direct violation of nature's laws. Multiplicity of subjects bewilders the youthful mind, causing great strain on the nervous system and a resultant breakdown.

A child is sent to high school without due regard to inclination, ability or physical strength. Too much intellectual work is required of boys and girls during their period of evolution, which is not only too much for the pupils, but also economically unbearable by the community. Only superficial knowledge can be obtained under the present methods. This educational intemperance leads to disastrous results. The high school boy is self-conceited, vain, allwise and too self-important to notice anyone but himself.

Civilization has taken a step beyond the limit of common sense to produce him. He is a product of vicious education. The high school girl is a mentally surcharged hot-house plant, an hysterical being with exalted ideas of life, morbid desires and a stranger to her own sphere of usefulness.

The physical development of school children is ignored by the board of education, although it is equally important as mental culture. It must be taken into consideration, or the future of the nation will be endangered. There should be several recesses during the day and gymnastics should be a daily subjct in the school. The seats should be adjustable. The hygienic care should be under the supervision of medical school inspectors. Epidemics could thus be prevented, and the general status of health would be improved. Radical changes are necessary in our present system in order to save the nation from decay. It is a question worthy the consideration of our law-makers. Nature cannot be violated continually with impunity.

Dr. A. C. Corr, E. St. Louis, "A Further Consideration of State Medicine and Sanitation."

The conditions requiring "State Medicine" is the otherwise uncontrollable sanitation necessary to preserve and promote an average of health among the citizens of the State.

"State Medicine" consists in State help to produce and preserve conditions of sanitation too great for the citizen or the lesser political divisions, such as township, city or county to maintain, and is a legitimate outgrowth of our social and civil compact. It has limits all do not exactly agree upon; and a citizen will differ with himself according to his mood.

It is deeply involved in the question of the management of smallpox.

Sanitation and State Medicine should be left continuously before the people and legislative bodies, well argued and aptly presented so as to bring about a mature conclusion at the earliest date.

The question of public water supply for potation and culinary purposes should be more deeply considered than has been. Certainly limpid water free of visible particles of sewage can and should be provided by company's corporations asking for the franchise.

Dr. J. Palmer Matthews, Carlinville, "Etiology of Faulty Elimination by the Kidneys."

Virchow's theory of cellular pathology and separate living existence of the leucocyte did not recognize derangements of the circulation or alterations in composition of the blood to be pathological factors. Koch's theory of the action of vegetable micro-organisms. In administration of same follow his four rules. Vaughan's chemic theory; ptomaines.

The products of vegetables micro-organisms in their action on animal tissue which have the chemic reaction of alkaline bases. Group of substances found in excreta in those suffering from other than specific diseases due to micro-organism; are the product of retrograde metamorphosis.

Leucomaines; are synthetics with coffee and tea, and merely identical in action on the animal economy.

Migraine is one of the first signs of faulty elimination. The excretory organs by reason of contracted arteries fail to relieve the auto-intoxications and a chronic malnutrition ensues. Treatment.

Dr. James E. Coleman, Canton, "Scientific Need of Legislation Enforceing County Registration of Syphilitics."

The alarming increase of venereal disease since the close of the Spanish-American war. What can be done to prevent the spread of syphilis? The extra-genital chancre is abroad in the land. The public health is not safe. It seems necessary that communities should be warned. Nearly all contagious and infectious diseases are quarantined by the public. Venereal diseases alone is not to be mentioned. It is more dangerous in its remote consequences than all the contagious diseases combined. Legislators should recognize these facts, and a law be passed making compulsory the registration of syphilitics. It is our duty to insist upon it.

Cases in point.

The sum of $50,000 has been presented to the Evanston Hospital by Mrs. Herman D. Cable. Half of the amount is to be used for the erection of the Herman D. Cable memorial building. The other $25,000 is to be devoted to the maintenance of a children's ward as a memorial to the donor's daughter.

County and District Societies.

CHICAGO PEDIATRIC SOCIETY.

Regular meeting March 1st, 1900. The president, Dr. A. C. Cotton, in the chair.

1. Paper by Dr. E. W. Ryerson, on "Infantile Paralysis," dwelling chiefly on the orthopedic treatment of cases. Discussion by Drs. Moore, Merrill, Walker, Kreuser, Cotton and Churchill.

2. Paper by Dr. F. M. Belknap on "Incipient Tuberculosis." Discussion by Drs. Ryerson, Cotton, Class, Morse and Churchill.

F. S. Churchill, M. D., Sec'y.

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DECATUR MEDICAL SOCIETY.

A regular meeting of the Decatur Medical Society was held Thursday evening, March 22d, in offices of Dr. W. B. Hostetler. President W. J. Chenoweth in the chair, and twenty-six members present.

On motion of Dr. N. D. Myers, a committee of five was appointed to arrange a new fee table for the society.

The following gentlemen were chosen delegates to the State Society in May: Dr. M. P. Parrish, Dr. C. M. Bumstead, Dr. J. W. Sanders and Dr. H. C. Jones.

The subject of delay at railroad crossings was brought up and discussed and it was the opinion of the members that physicians making calls on the sick should not be delayed at crossings, but should be allowed to pass promptly as are the police and fire departments. A committee was appointed to secure this.

The regular program was "The Acute Inflammation of the Lungs and Bronchi."

1. Diagnosis and Differentiation, Dr. E. J. Brown.

2. Comparative Clinical Histories, Dr. M. V. Lonergan.

3. Treatment, Dr. J. N. Randall.

4. Complications and Sequelæ, Dr. W. A. Dixon.

5. Above diseases in children, Dr. N. P. Collins.

The program was greatly enjoyed, was extensively discussed and much valuable information brought out.

Great interest taken in the society and we expect to stand second only to the Chicago Medical Society.

W. C. Wood, Sec'y.

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M'LEAN COUNTY MEDICAL SOCIETY.

The 47th annual meeting of the McLean County Medical Society was held in the City Hall in Bloomington, Thursday, April 5th, 1900, at 2:30 P. M. The president, Dr. E. E. Sargent, of LeRoy, was in the chair. Of the nineteen charter members, one, Dr. C. R. Parke, is still in active practice and holds his membership in the society.

The Committee on Printing Constitution and By-Laws reported the difficulty in obtaining some data on the necrology report, and delayed them somewhat, but that they hoped to finish the work soon. Dr. F. C. Vandervort gave notice of a proposed amendment to the constitution creating the office of society historian. It shall be the duty of said officer to keep the necrology report up to date.

The delegates to the State Medical Society were instructed to vote for Peoria as the place for the meeting of that Society in 1901.

The following officers were duly elected for the ensuing year: President, Dr. Chas. E. Chapin, Bloomington; Vice-President, Dr. A. D. Young, Downs; Secretary, Dr. F. C. Vandervort, Bloomington; Treasurer, Dr. J. W. Fulwiler, Bloomington. Board of Censors: Dr. J. Y. Bonnett, Bloomington; Dr. A. N. Earel, Bloomington and Dr. G. D. Elder, Bloomington.

Dr. A. N. Earel reported a case of "Antrum Abscess." Operation through the alveolus, a silver tube introduced and irrigation practiced.

Dr. J. Little in an interesting manner discussed "The Death of Washington," from a medical standpoint.

E. J. Hyndman, M. D., Sec'y.

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PEORIA CITY MEDICAL SOCIETY.

At a regular meeting of the Peoria City Medical Society, held at the National Hotel

on Tuesday evening, April 3d, 1900, Dr. O. J. Roskoten in the chair, the minutes of the preceding meeting were read and approved.

The following members were present: Drs. O. B. Will, O. J. Roskoten, J. S. Miller, R. A. Kerr, C. H. Brobst, S. Horwitz, J. W. Hensley, E. M. Eckard, M. S. Marcy, Emma Lucas, A. Plummer, R. D. Bradley, H. A. Schoaff and Hasson.

Dr. O. B. Will reported in behalf of the committee whose object it was to secure for Peoria the semi-centennial meeting of the Illinois State Medical Society. More than half the members of that organization were desirous of meeting in Peoria, but in view of the fact that the organization was founded in Springfield, Ill., the speaker said that it would be no more than fair that the society should favor that city with their jubilee. It would be quite right, he concluded, to lay plans to secure for us the meeting of the fifty-first anniversary of the society, which is to take place in 1901.

Dr. O. B. Will presented a paper embodying some observations of a personal and scientific character made amongst the medical men and institutions of Philadelphia during a recent visit to that city. A description of the personal characteristics and methods of some of the leaders in the profession was indulged in, such as Joseph Price and Prof. Daver, whose operative clinics were followed for a day or two and the salient features of their work dwelt on to an extent including a description of the history, nature and treatment of the cases presented, especially in so far as they differed in any way from the common experience. A general discussion followed having for its object an elucidation of the points brought out. Altogether the session was an interesting and profitable one.

On motion the Society adjourned.

H. M. Sedgwick, Sec'y.

ASSOCIATION OF MILITARY SURGEONS OF THE STATE OF ILLINOIS.

The Association of Military Surgeons of the State of Illinois met at the Great Northern Hotel, Chicago, April 10, 1900. President Col. Nicholas Senn, and Secretary Lieut. Col. Chas. Adams in their respective positions.

The minutes of the last meeting held in 1897 were read and approved. A committee consisting of Lt. Col. Kreider, Major G. P. Marquiss and Major T. C. McCord was appointed to present proper resolutions on the death of the three comrades who had passed to fame's eternal camping ground since the last meeting. These were Gen. J. B. Hamilton of the Marine Hospital Service, Chicago; Major Jas. H. Etheridge, Chicago, and Lieutenant L. S. Cole, of Kewanee. Later the committee submitted appropriate resolutions which were unanimously adopted.

Reports from the surgeons who had seen active service in the Spanish-American war were then heard until 12:30, when a luncheon was served at the Great Northern, tendered by the medical officers of the First Infantry. The afternoon was profitably spent at Rush Medical College attending a clinic given by Surgeon General Senn.

At 6 o'clock dinner was served at DeJonghs, tendered by the Surgeon General. After the dinner, in numerous courses, had been served, the reading of reports was resumed and continued until every regiment excepting the fifth had been heard from. Remarks were also made by Lieut. Col. Hartsuff, who was in charge at Chickamauga during the stirring times of '98. Col. Hartsuff very properly took occasion to place himself in a proper light and explain that he had made earnest and repeated efforts to have proper sanitary and medical supplies for the troops during the time they were under his supervision. It was voted to have an association badge, and a committee was appointed on the design. The three assistant surgeons general were appointed as a committee to prepare proper blanks to be used in the examination of recruits. The surgeon general announced that he would, in his report, make use of the reports of their personal work and experience of the Surgeons of Illinois during the war. At a late hour the association ad-

journed, having enjoyed a pleasant and profitable session.

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PHYSICIANS' PROTECTIVE ASSOCIATION.

Meeting of the Physicians Protective Association of Jackson County, Ill., held in Murphysboro, April 7, 1900.

Meeting called to order by chairman W. W. Essick. Minutes of last meeting read and approved.

Reports of the special committees called for. Dr. Essick reported that having found the original letter from Mr. Gompers, he (Dr. Essick) had not written him relative to the matter of our organization affiliating with the A. F. of L., but would do so if the Association so desired. Moved by Dr. Seed, seconded by Dr. Ellis that this report be accepted and the committee discharged. Carried.

Dr. Freeman reported that the committee composed of Dr. Silvey and himself had no report, and was continued by the chair.

Dr. Daniel reported that Mr. Oogley, the writer of the illegal prescription, had communicated with the State Board of Health, had had his attention drawn to those sections and articles relating thereto, and intended going to Springfield to take the State Board examination, and further stated that he would not be guilty of a like offense again. Such being the case Dr. Daniel did not write the State Board relative to the matter. The chair stated if there were no objections the report would be accepted, the committee discharged and the incident closed, which was adopted.

The matter of county or pauper practice being next brought up was discussed and as several of the members stated that the supervisor said all such practice should go to Dr. Etherton at the regular fee bill rate. It was moved by Dr. Ellis, seconded by Dr. Riseling, that the chair appoint a committee of two to wait on the supervisor and explain to him our position in the matter and state we do not consider that any physician should have this exclusive practice, but that each should have his share. Further that if he does not pay the fee bill rate that we shall certainly make our displeasure manifest to him. Carried.

The chair appointed on this committee Drs. Riseling and Daniel.

Dr. Seed then stated that the name of Mr. ———— should be taken from the delinquent list, he having settled his indebtedness to the doctor and the secretary was ordered to so notify all absent members.

Dr. Wheeler then presented an excellent paper on scarlet fever. Dr. Essick lead the discussion. An able and practical talk followed, in which each member of the association present said a few words on the subject.

The chair then appointed Dr. Seed to act with Dr. Post on the program committee.

Motion that we adjourn to meet at the regular time at the office of Dr. Wheeler. Carried.

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ADAMS COUNTY MEDICAL SOCIETY

The Adams County Medical Society held their regular monthly meeting in the Chamber of Commerce, Quincy, April 9, 1900.

President Tull being out of the city, Dr. Sigsbee, of Mendon, presided at meeting. Minutes of meeting of March 12 were read and approved. Members present: Drs. Christie, Gilliland, Sigsbee, Center, Hart, German and W. W. Williams.

Report of treasurer of Banquet Committee, Dr. Chas. D. Center, was read showing:

Receipts—	
By sale of 62 tickets..	$124 00
By reserve fund	50 00
	$174 00
Expenditures—	
To Newcomb Hotel ...	$140 00
To Gardener Orchestra	10 00
To decoration (florist)..	10 00
To printing & postage.	13 85
	$173 85

Balance of 15 cents was paid to secretary.

Auditing Committee, composed of Drs.

Gilliland, Fletcher and W. W. Williams examined report, and found same correct.

A motion was made that the Society return a vote of thanks to the Committee on Arrangements for the excellent entertainment and banquet given in honor of our fiftieth anniversary. Carried. The same committee with the secretary were instructed to write up a suitable report of our fiftieth anniversary, banquet, etc., and report at next meeting.

Communication from Dr. E. M. Sutton, of Peoria, laid on table.

Invitation from Quincy Water Works Company to visit and inspect the filtering plant carried over to next meeting.

Application of Dr. A. D. Bates, of Camp Point, for membership, recommended by Dr. Gilliland, was received and sent to censors.

Report from committee appointed to take steps to secure a pest house was made by Dr. Hart. He reported the committee had conferred with Board of Health, and learned they had purchased property located north of the city, said property consisting of a house and eleven acres of ground. Already six cases of smallpox were being cared for there now.

Clinical report. The surgical treatment of Empyæma with report of three cases, was given by Dr. W. W. Williams, and discussed by the following members: Dr. R. J. Christie, Jr., said Dr. Bernays, of St. Louis, read a paper at the Tri-State Medical Society, advocating the removal of the fibrinous membrane and allowing the lung to expand. He reported a case of serous effusion where aspiration was followed by empyæma, and after re-section of four ribs patient made good recovery. Dr. Center thinks the grippe microbe the cause of most cases of empyæma.

Dr. Hart believes in irrigation of chest with weak solution of Tr. Iodine.

Dr. Gilliland reported cases, where the membrane was one inch in thickness.

Dr. John Koch believes in injections of iodoform emulsion.

The card from Dr. E. W. Weis, Per. Secretary of Illinois Medical Society, was read inviting the secretary of this society to send the minutes and manuscript of the good papers to be published in the Journal.

Dr. Center made motion that the secretary thank Dr. Weis for the courtesy extended, and also send him the paper of any member of the Society that desired his paper published, the secretary of Journal to decide as to its merits, whether or not it should be published. Also that Dr. W. W. Williams send his paper for publication. Carried.

Meeting adjourned.

W. W. Williams, Sec'y.

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SANGAMON COUNTY MEDICAL SOCIETY.

The Sangamon County Medical Society met in the County Court room, Springfield, April 9, 1900 with President Kreider in the chair.

Members present: Drs. Bartlett, Barker, Babb, Brayshaw, Bowcock, Brittin, Crocker, Fisher, Griffith, A. L. Hagler, Hill, Kreider, Munson, Nelson, A. D. Taylor, I. H. Taylor, Percy Taylor, L. C. Taylor and Walters.

The minutes of last regular meeting were read and approved.

The following new members were elected, viz: Drs. Vernon, Guttery, S. Ellen Rourke and L. L. Leeds.

The application of Dr. Margaret Taylor Shutt was received and referred to the Board of Directors. Also application of Fred S. O'Hara, received and referred.

The topic of the evening was opened by Dr. Crocker with "Causation, including Heredity of Tuberculosis;" long been known as infectious disease, characterized by nodular bodies; true nature of same demonstrated by Koch about 1882; found among animals other than man, especially in cattle; bacillus found in nearly every part of the tuberculous; circulatory system, tissues, excreta, milk, stools, urine, but especially in the sputum. Bacillus found outside of the body in food and in the dust, wherever tuberculous persons frequent, as in houses, streets and all public places. Various modes of infection, hereditary transmission, food, and inoculation; by

heredity is meant the transmission of predisposition to the disease rather than that the germs are transmitted from mother to child. Spoke of the occurrence of the disease by inoculation. The danger from inhalation came through the carelessness of the consumptive, especially with the sputa, which dried became a danger to the uninfected as it was taken up by the air and disseminated widely. Infection from milk supply also a source of great danger. Various conditions influencing infection, as individual predisposition, age, sex, race, occupation, local conditions and environment found in ill-ventilated workshops and tenements, devoid of sunlight, in damp localities, etc. No age exempt, but different ages show difference in manifestation. Sex influence slight. Occupation a predisposing cause more from environment, than otherwise.

Dr. A. L. Hagler presented the "Microscopical Diagnosis" of the disease. The discovery of the organism which causes tuberculosis, and the consequent employment of the microscope to so great advantage in the diagnosis of the disease, has proved of incalculable benefit to mankind; fairly revolutionizing a great department of surgery. This important discovery results from many years of research and experiment. The inoculability of tuberculosis was first recognized in 1826 by Laennec. Villemin, in 1865, first demonstrated experimentally, the possibility of transmitting the disease from man to animals. Cohnheim in the following decade proved that tuberculosis is a specific infectious disease. Baumgarten receives credit for being the first to see the bacillus with the microscope, but to Koch is given the honor of demonstrating beyond question its right to be considered the cause and the only cause of tuberculosis. Microscopical examination is now a necessity for a thorough and scientific diagnosis of tuberculosis: it must be borne in mind, however, that while the presence of the bacilli of tuberculosis in a specimen is a positive indication of that disease, the absence of such bacilli is not always a proof that the disease does not exist. The microscope is employed to advantage in the examination of the sputum of the tuberculous pus, of the tubercle in the case of lupus, and of the urine. Described the tubercle bacilli; where most frequently found, methods of staining, etc. Quoted Baumgarten as authority for statement as to the inoculability of cheesy material causing the disease where the bacilli could not be demonstrated, by any system of staining. Described method of securing specimen from urine for examination by miscroscope.

Dr. Ryan considered "Osseous Tuberculosis," first taking up *Caries of Vertebrae, or Potts Disease.*

Described the etiology as tuberculosis and injury. Site of disease, the bodies of vertebrae usually beginning in the center. Resulting lesion a more or less complete destruction of the bodies of the vertebrae, with angular deviation of the spinal column.

Cervical Disease. Abscess opening at side of neck behind sterno-mastoid; in pharynx, or pus burrowing behind œsophagus into pleural cavity. Dorsal, pus following sheath of psoas muscle, forming psoas abscess, etc.

Lumbar Region. Psoas muscle often involved and abscess pointing in iliac region or escaping at sciatic foramina making gluteal abscess; rarely eroding into intestines.

Deformity. Most marked in the dorsal region. Described early symptoms.

Lumbar Disease. Pain extending down thighs; normal hyper-extension of thighs lost. If normal extension of thigh present, disease at or below the attachment of the psoas muscle can be excluded. Considered treatment.

Coxalgia, Coxitis. Hip joint disease.

Etiology; Tuberculosis—Injury. Described site, symptoms, physical examination. *First Stage, Second Stage* and *Third Stage* with treatment. Also considered *Tuberculosis of Knee,* with treatment.

Drs. Griffith, L. C. Taylor, Munson, Walters, Bartlett and others joined in the discussion of the different papers.

Dr. Bartlett offered the following resolution:

Resolved, That the president appoint a committee upon "The dairy as a source of danger in spreading tuberculosis, especially among children;" also a committee to report upon the danger to the public from expectoration of sputa upon the streets, in street and railroad cars, and in public places, and to recommend measures whereby this filthy and dangerous habit may be prevented.

The president appointed as first committee Drs. Bowcock, Fisher, Munson, A. D. Taylor and A. L. Brittin; and as second committee Drs. Griffith, Babb, Walters, Brayshaw and Bartlett. Both committees to report at the June meeting.

The Society adjourned to the second Monday in June.

Edward P. Bartlett, Secretary.

PIKE COUNTY MEDICAL SOCIETY.

Pike County Medical Society, organized April 19, 1900, at Pittsfield, Ill.

Officers chosen were as follows:

President, Dr. L. J. Harvey, of Griggsville.

Vice-President, Dr. H. T. Hatfield, of Pittsfield.

Secretary, Dr. R. H. Main, of Barry.

Treasurer, Dr. G. F. Bechdoldt, of Perry.

Directors, Dr. B. P. Bradburn, Dr. Samuel Peacock and Dr. G. Henry.

Judiciary Council, Dr. J. H. Barber, Dr. Forbes Reynolds, Dr. W. H. Garrison, Dr. G. N. McComas, Dr. C. E. Beavers.

Sixteen physicians were present as follows: Dr. L. J. Harvey, Griggsville; Dr. G. Henry, El Dara; Dr. Geo. A. Humpert, Pittsfield; Dr. R. O. Smith, Pittsfield; Dr. Wm. Shastid, Pittsfield; Dr. C. E. Beavers, Barry; Dr. G. N. McComas, New Canton; Dr. G. F. Bechdoldt, Perry; Dr. F. M. Crane, Pittsfield; Dr. H. T. Duffield, Pittsfield; Dr. Sam'l Peacock, Baylis; Dr. Virgil Beavers, Beverly, Adams County; Dr. B. P. Bradburn, Pearl; Dr. J. H. Barber, Pittsfield, and Dr. R. H. Main, Barry.

GALLATIN COUNTY MEDICAL SOCIETY.

The Gallatin County Medical Society met in regular session April 11th, 1900, at the offices of Drs. Cassidy and Grattan.

Present—Drs. Colvard, Barton, Grattan, Coombs of Ridgway, Bourland of Equality, and Cassidy. Absent—T. W. Jones of Inman.

Dr. H. L. Starkey of Junction, was elected a member of the society.

The papers of the evening were by Dr. J. F. Barton, "Tonsilitis and its Treatment," and Dr. I. N. Bourland, "Influenza and Complications." Both were freely discussed by all present and the society thanked the essayists for the able papers presented by them.

The society also discussed the question of amending the present medical practice act, and decided to support only such candidates for the legislature as would pledge unqualified support of any and all amendments offered by the legislative committee of the Illinois State Medical Society.

The officers for the current year are Alex. H. Colvard, President; W. H. Grattan, Vice-President; Geo. P. Cassidy, Secretary and Treasurer.

The society meets on the evening of the second Wednesday in each month.

Geo. P. Cassidy, Secretary.

MACOUPIN COUNTY MEDICAL SOCIETY.

The semi-annual meeting of the Macoupin County Medical Society was held in the Masonic Reading Room, and was called to order by President Collins at 11 A. M.

There were present F. C. Barto, Plainview; G. E. Hill, Girard, and John Ash, Brighton. The local profession was represented by Drs. J. P. Matthews. L. H. Corr, J. S. Collins, J. M. Barcus, Elias Davis, J. P. Denby, E. A. Bleuler and J. Palmer Matthews.

Committee on Necrology made following report:

WHEREAS, Death has entered our ranks and removed from their fields of labor Drs. C. E. Jones of Thomasville, A. G. Mc-

Coskey of Modesto, and L. F. Corgan of Woodburn; therefore be it

Resolved, That this Society extend to the bereaved families its sincere sympathy and condolence and assure them that its members will ever be ready to extend them professional courtesy at all times.

Signed L. H. Corr,
F. C. Barto,
J. P. Denby.
Committee.

The Board of Censors reported F. C. Barto, President; H. W. Gobble, Vice-President; J. Palmer Matthews, Secretary and Treasurer. Place of meeting in absence of other invitations, Carlinville. Essayists: Drs. J. S. Collins, A. T. Bartlett, M. B. Dalton.

The afternoon session was called to order by President Collins. The first paper, entitled "Prophylaxis in Typhoid Fever," was read by the Secretary in the absence of the author, Dr. Penniman. "Typhoid fever is in theory a preventable disease. The objects of prophylaxis are:

1. To prevent any case of disease becoming a focus of infection.

2. To correct such faulty sanitary arrangements as lead to pollution by fecal matter of water used for drinking and domestic purposes."

These two points were brought out at length by the paper, and the discussion on the various methods of carrying the germ in sporadic cases. The measures to keep up the standard of health of all who come in contact with the patient is a very important point in prophylaxis.

Dr. L. H. Corr read a paper prepared by Dr. A. C. Corr on "Highmyopia."

Dr. John Denby read a paper on "Physicians' Duties Preparatory and During Pregnancy."

A general discussion followed which brought out a number of the more important points in the conduct of a case of labor.

Dr. J. P. Matthews reported a case of puerperal septicæmia with diphtheritic deposit over vaginal portion of cervix. Condition followed rupture of perinæum.

The septic infection was treated locally and Crede's ointment of silver was rubbed into abdomen and a good recovery is reported.

After delegates to State Medical Society were provided for the society, on motion, adjourned.

J. Palmer Matthews,
Secretary.

SPECIAL MEETING OF MORGAN COUNTY MEDICAL SOCIETY.

An open meeting of the Morgan County and neighboring Medical Societies to discuss the medical laws and medical organization in the State of Illinois, was held at Jacksonville, April 12, 1900.

For some time certain members of the Morgan County Medical Society had believed that our medical laws and medical organization in this State should have a more free and general discussion. It has usually been the custom to consider such questions in the State Society, while as a rule they have not been discussed in local Societies. The discussion of such questions is less hampered and more true to the belief of each individual in local Societies than in delegate Societies, and for this reason all matters relating to legislation should begin with the local Society, where each individual feels perfectly free to express his personal views. In this way the real views of the profession can be obtained and out of these views legislation can be formulated.

This meeting was organized with the further belief that in order that physicians may be able to properly protect the public health they should be better organized and should be more in unison in securing health measures. With these thoughts in view a committee was appointed to formulate a program, and the following Medical Societies were invited to participate:

Sangamon County Medical Society, Macoupin County Medical Society, Peoria Medical Society, Brainard District Medical Society, Central Illinois District Medical Society, Western Illinois Medical and Surgical Association, Military Tract Medical Society, and Decatur Medical Society.

Every Society except one responded favorably, and every appointee but two was present with a well-prepared paper on this topic.

The following is a list of the physicians and others present:

Drs. R. H. Main of Barry, C. W. Hall of Kewanee, Geo. N. Kreider of Springfield, L. Middleton of Pontiac, J. R. Walker of Bluffs, A. C. Corr, of Carlinville, F. M. Crane of Pittsfield, R. O. Smith of Pittsfield, S. T. Hurst of Greenview, E. J. Brown of Decatur, W. W. Crain of Sinclair, Wm. Wolfe of Arcadia, Johnson of Barry, Redwine of Whitehall, H. W. Chapman of Whitehall, H. A. Chapin of Whitehall, W. C. Day of Winchester, J. C. Caldwell of Manchester, Knox of Manchester, Casey of Cincinnati, O., G. F. Bechdoldt of Perry, J. H. Barto of Waverly, W. G. Maness of Nortonville, Higbee of Rood-

house, T. W. Moffett of Williamsville, H. B. Boone of Chandlerville, E. M. Eckerd of Peoria, Katherine Miller of Lincoln, C. B. Johnson of Champaign, J. Shipp of Springfield, Williams of Versailles, F. M. Coppell of Havana, W. C. Manley of Franklin, L. J. Harvey of Griggsville, A. J. Ogram of Literberry, Mrs. W. G. Maness of Nortonville, and Drs. A. F. B. Burnham, A. L. Adams, F. P. Norbury, E. L. Herriott, Carl E. Black, Josephine Milligan, E. F. Baker, E. S. Crouch, T. J. Pitner, J. J. Cochrane, Virginia Dinsmore, E. Sipes, H. C. Campbell, J. W. Hairgrove, J. E. Wharton, D. W. Reid, P. C. Thompson, Miss Doying, Mrs. P. E. Hofmann, F. S. Hardin, Geo. Stacy and Wm. Walton of Jacksonville.

Letters from Drs. J. W. Pettit of Ottawa, E. W. Weis of Ottawa, J. A. Egan of Springfield, H. N. Moyer of Chicago and W. H. Wilder of Chicago and others indorsing the purpose of the meeting and expressing their regrets at not being able to be present were read.

The first paper was entitled, "History of Our Medical Laws," by Dr. A. C. Corr, of Carlinville, representing the Macoupin County Medical Society.

Dr. E. J. Brown, of Decatur, said in discussion of Dr. Corr's paper, that "he had heard Dr. Chenoweth, of Decatur, say at a meeting of the Decatur Medical Society that he claimed the honor of being the first person in this State to suggest the passage of the Medical Act. He had received papers from California telling of the doings of the State Board of Health there, and he thought it would be a good thing for the medical profession in the State of Illinois to have such a Board. He claims that this was the conception of the present Medical Practice Act. Of course the prior claim of Dr. Trowbridge, mentioned by Dr. Corr, was the pioneer in the making of suggestions of the Medical Practice Act of Illinois. This was two years before the act was made a law."

Dr. C. W. Hall, of Kewanee, said: "I am very much interested in the history of the Medical Practice Act. While it is a matter of historical interest to me, there is a great deal between the lines. It seems to me that the essence of this paper is this—that the Board of Health and the Medical Practice Act is a creation of the Illinois State Medical Society. Being so, it is the duty of every member of that Society to support it. It seems to me that any doctor who belongs to that or any other Society should not find fault with it. It being a creation of our own, it is our duty to maintain and support it. As shown by the paper read, it seems to take a great many years to make any progress. I find that it is very easy in this world to find people who can criticise, but it is hard to find people who improve. I think it better for the medical profession to stand united. Loyalty to the profession is the only thing that will bring success before the Legislature. I think one of the main points of this meeting is to see if we cannot in some way agree on definite ideas."

Dr. Geo. N. Kreider, of Springfield, said: "I wish to commend this paper of Dr. Corr's as an historical recital of events which I think cannot be too often brought before the profession. I think Dr. Corr might add to his paper the small size of the State Society when it set about to have this law enacted. It only numbered about 350 members in 1877, and of these only 194 were active members. Twenty Societies only were represented at the 1877 meeting of the State Society."

Dr. E. L. Herriott, of Jacksonville, said: "Would it not be well to give the number of physicians practicing in the State at that time?"

Dr. Kreider answered that there were 6,032 practicing physicians in the State at that time. Five thousand were affiliated with no Society.

Dr. Corr said: "We have been trying to get as many of the medical profession interested in the medical legislation as possible, which should be not all for the public but for the profession in general."

The second paper was entitled, "Efficiency of Our Health Laws," by Dr S T. Hurst, of Greenview, representing the Brainard District Medical Society.

The third paper was on the same subject as the second, and was presented by Dr. H. W. Chapman, of Whitehall, representing the Western Illinois Medical and Surgical Association.

The fourth paper by Dr. E. M. Eckard, of Peoria, representing the Peoria Medical Society, was entitled "The Efficiency of Our Laws Relating to Medical Education and Practice."

The papers were all thrown open for discussion as follows:

Dr. R. H. Main, of Barry, said: "The last three papers which have been read were all entitled 'Efficiency of Our Health Laws,' and I believe they all told of 'inefficiency of our laws.' I would like to hear of the efficiency of our laws."

Dr. A. C. Corr, said: "In Illinois we have to put up with the kind of a law we can get, but we must not lay the responsibility on the profession or committee; the difficulty is with the law-making fellows and the law they get out of it. The question has been asked whether the members of the State Board of Health are paid for their services. The Secretary is the only one who receives pay. It takes some money and means to carry on the work, and not many are going to give away their time and work. I suggest you think about some provision so they can have pay."

Dr. S. T. Hurst asked, in regard to the osteopaths, "How are we to run them out?"

Dr. S. E. Crouch said: "There are a great many men traveling over the country professing to make a great many wonderful cures, who are not practitioners at all. It seems they ought to be prosecuted, but there should be some means of getting at them other than securing an ordinance from the local council."

Dr. Carl E. Black said: "It seems to me in a general way that the laws we have in the State will after all represent the profession in its entirety. If the profession is united in its ideas as to what laws we should have relating to the protection of health and of the sick, we will have laws for that purpose. If we are united we will have proper laws. Dr. Pettit says if ten physicians in each county would agree on a law, that bill would become a law, because ten physicians in each county would have enough influence to carry any well-drafted bill. Work-

ing as individuals we have not much influence. Success in securing the passage of proper health laws will depend on the condition of organization which prevails in the profession. We should use every effort to unite the profession in a large and harmonious organization which will work for such measures as will best protect the public health. It is little difference to the regular profession whether the State is overrun with quacks and frauds and humbugs, because after all, we know that when people are legitimately sick they, ninety-nine times out of a hundred, send for regular and legally qualified doctors. The protection of the profession should never be more than an incident. All the laws we adopt should be based entirely on the protection of the public health. One of the best measures for protecting the health of our citizens is such laws as will give to them educated and thoroughly qualified physicians."

Dr. E. M. Eckard said, "he thought we ought to protect our patients against quacks and fads, and try to get rid of them. Who will help the people who are unable to help themselves, if we as physicians do not?"

Owing to the business of the quarterly meeting af the State Board of Health, Dr. Egan, the efficient Secretary of the Board, was unable to be present at the meeting, and Dr. C. B. Johnson, the President of the State Board of Health, was present, and said in part, "he had not come prepared with a paper, but if there were any questions to be asked in regard to the rulings of the State Board of Health, he would be glad to answer them. He thought if the doctors all over the country would work together, they could run most of the quacks out. He said he thought the thing to do was to get a lawyer, one who was in sympathy with the movement, and get after them, and they would be vastly fewer in number than they are."

Dr. Eckard asked of Dr. Johnson if any attempt has been made to prosecute the quacks who put forth obscene advertisements.

Dr. Johnson spoke of a case in Champaign, where a man with a very obscene advertisement was stopping at a hotel. He called upon him; there were several waiting for the "doctor," and he waited his turn. He was very nice to him in every way. Dr. Johnson introduced himself as a member of the Illinois State Board of Health, and asked him if he had a license to practice. He said, "yes," and produced a license signed by Dr. Johnson, as President of the State Board of Health."

Dr. Geo. N. Kreider, of Springfield, said he was very much interested in these papers, as he had been a member of the State Board of Health, and a member of the Legislative Committee, for a number of years, and was familiar with all the medical laws which had been enacted in the State. He spoke of himself and Dr. Pettit as having aroused the profession to influence the Governor to veto the Osteopath bill, which passed by the Legislature in 1897. He said, "In the first place, we know our law is not perfect, and when we are dead and gone our followers will have a law which is not perfect, but I am sure that the laws enacted have been as good as the profession as a whole in the State of Illinois. We as a profession should see to the enforcement of these laws. If we don't, who will? I think it is unfair for those who never contribute a penny or a moment of time in helping to enforce the laws to criticise them. We have been trying for many years to build up our State Society. It was a very fortunate thing that the Journal was started. The Society has increased nearly fifty per cent. in the ten months it has been issuing the Journal. I believe before another year the Society will have 1,500 members. Such a meeting as this is a grand thing. It is a good thing to discuss these matters. It brings out the difficulties encountered in securing and enforcing the law. You cannot expect to have an ideal law, but if we have a Society of 1,500 members all working together, we will have a law such as we never dreamed of."

Dr. S. T. Hurst said he thought the local Societies should be the originators of all these bills that come up, and if we could agree in the local Society we could in the State Society, and we would be able to have a much better law if we all worked together for the same end.

Dr. E. J. Brown, of Decatur, spoke of the Secretary as being the most important officer of a Medical Society, and that he should be a live man and furnish the Society with an interesting and instructive program each time. He must be willing to give his time and interest to the work. One of the failures of Societies is the want of a decent Secretary.

At the close of the discussion, the following resolution, framed by Dr. A. C. Corr, of Carlinville, was unanimously adopted by those present:

Whereas, The Morgan County Medical Society, in session at Jacksonville, Ill., this twelfth day of April, 1900, for the purpose of discussing the subject of Medical Laws and Medical Organization in the State of Illinois, there being in attendance representatives from numerous Societies; and

Whereas, It has come to our knowledge that Dr. S. H. Birney is seriously sick at his home in Urbana; and

Whereas, It was on his motion in the Illinois State Medical Society, May of 1876, that the first law regulating the practice of medicine and the creation of a State Board of Health, the topics of our discussion and consideration to-day was instigated; therefore, be it

Resolved, That we do here express our deep and sincere sympathy and fraternal feeling with him in his painful affliction, and the hope that he may speedily recover and be restored to health and the enjoyment of that blessing which he has promoted among others, and was so widely felt by those laws he instigated, and did much to have enacted; and

Resolved, That we call on Dr. Johnson, his neighbor, to convey to him our feelings on this occasion.

Dr. F. M. Crane, of Pittsfield, made the following remarks, with resolution:

In conformity with the ideas expressed to-day we should use our influence along these lines to have all men filling public offices, by appointment or otherwise, to be chosen because of their peculiar and special fitness for the place, irre-

spective of all and devoid of any political bearings. At this time I am reminded of the new office of Commissioner of Leprosy. How vitally important it is that the appointment for this office should be the best qualified man that we can get, who will be wholly competent and willing to faithfully carry out this very important work successfully.

Dr. E. S. Goodhue, of Los Angelos, Cal., formerly Government physician in Hawaii, is the ideal man for the place. He is not only highly esteemed throughout the literary world as an author and poet, but he is eminent in the medical world for his able contributions to the various medical journals. It was he who first recommended National and State legislation in regard to leprosy.

I therefore desire to offer the following resolution for the consideration of this body:

Whereas, Dr. Goodhue was the first to see the need of and to recommend a Commissioner of Leprosy; and

Whereas, He is peculiarly and specially qualified for the position; therefore, be it

Resolved, That the officers and members of the Morgan County Medical Society hereby express their utmost confidence in the qualifications, integrity and executive ability of Dr. E. S. Goodhue, and that they recommend that he be appointed Commissioner of Leprosy; and further

Resolved, That a copy of these resolutions be spread on the minutes of this meeting, and that a copy be sent to Dr. Goodhue at Los Angeles, Cal.

The resolutions were unanimously adopted.

Dr. W. T. Moffitt moved to than the members of the Morgan County Medical Society for their hospitality on this occasion, and the very enjoyable hour spent at lunch.

Dr. Carl Black moved that the Society extend a vote of thanks to those who contributed to the program in making the meeting interesting.

Both motions were unanimously carried.

Society adjourned.

Carl E. Black,
Sec. Pro Tem.

State Board of Health Items.

DISINFECTION WITH FORMALDEHYDE.

During the past three months the State Board of Health has devoted much time and attention to an investigation of the merits of formaldehyde as an aerial disinfectant, following up the line of experiments carried on from March to September, 1899, which were referred to at length in the Journal of October, 1899. The tests were confined to the so-called "sheet process," which consists in spraying suspended sheets with 150 c.c. of the 40% solution for each 1,000 cubic feet of air space to be disinfected, and to an apparatus devised by the St. Louis Health Department from which formaldehyde is evolved by the boiling of the 40% solution.

All experiments were conducted at the University of Illinois under the immediate direction of Professor T. J. Burril, State Bacteriologist.

As in the experiments in 1899 the Board has been unable to obtain any definite result from the gas of formaldehyde of the 40% solution, although as before the tests were made in the most painstaking manner and under varying conditions. Disinfection by the use of 150 c.c. of formaldehyde to each 1,000 cubic feet, the amount commonly used by the health authorities recommending this mode of disinfection and by the different railroads employing its use, could not be accomplished even under the most favorable conditions. By considerably increasing the amount of material in proportion to the space, favorable results were obtained in surface disinfection alone, and then only under proper atmospheric conditnos. At a temperature below 50 F. this method was found to be entirely useless. In one experiment, 450 c. c. of formaldehyde were used to 1,000 cubic feet of space, the organisms exposed being B. typhosus, B. anthracis, B. diphtheriæ and staphyloccus pyogenes aureus. Not a single culture was affected. The same results were obtained in exposure of 350 c.c. with the same organisms and in the same space.

The Board unequivocally condemns this mode of disinfection, which not only has ben found almost worthless, but also somewhat difficult of application. The vapor of formaldehyde is exceedingly irritating, and it is very difficult for the operator to remain in the room while the minimum amount, 150 c.c. even, is being sprayed on the sheets. The Board found that in many instances the solution produced paraform instead of formaldehyde. In all experiments at a temperature below 50, considerable paraform was found on the sheets. This was due to the slow evaporation incident to the low temperature.

The apparatus of the St. Louis Health Department is very simple and the results obtained have been satisfactory. It consists of a copper kettle for formaldehyde, a tripod and a copper vessel for holding alcohol. When the apparatus is placed ready for use the kettle is partly filled with water and the alcohol lighted. When the water boils there is poured into the kettle 40 oz. of 40% solution of formaldehyde, which quantity is deemed sufficient for the disinfection of 2,000 cubic feet of air space. In addition to this there is placed in the room another apparatus similar in construction containing about 2 gallons of water which boils away during the formation of the gas. This has been found necessary on account of the liability of the gaseous formaldehyde to repolymerize on the absence of moisture.

As stated the experiments of the Board with this apparatus were found exceedingly effective under all conditions of temperature and humidity.

The Board will continue its experiments by testing one or more of the portable generators on the market, regulating formaldehyde gas, by the boiling of the 40% solution,and will then publish the results in pamphlet form.

SMALLPOX IN ILLINOIS.

Two hundred and thirty-three cases of smallpox with two deaths have been reported to the State Board of Health since the publication of the April Journal. The disease occurred in Cass, Champaign, Christian, Effingham, Franklin, Kane, LaSalle, Logan, Marion, Mason, McDonough, Mercer, Peoria, Sangamon, Schuyler, St. Clair, Vermilion, Warren, Washington, Wayne, White and Will counties.

The fatalities were reported from Littleton, Schuyler county, and from Ashley, Washington county.

Since December 1st, 1899, 2,703 cases and 21 deaths have been reported to the Board.

The epidemic is now on the decline except in a few counties in the Southern part of the State, in two of which, Hardin and Pope, new cases are being reported daily. These counties are not under township organization, hence, outside of a few incorporated municipalities, there are no legal health authorities. The State Board of Health is now taking steps to have a rigid quarantine in each county established by the sheriff and has engaged inspectors to make an inspection of all localities reported infected.

The prevailing type of the malady is still mild, although many severe cases of a confluent character have been reported. The Board in its efforts to control the disease is still seriously embarrassed by the attitude of the physicians who persist in calling the malady "Puerto Rican chickenpox" and "Cuban itch."

INVESTIGATION OF THE WATER SUPPLIES OF ILLINOIS.

All members of the State Medical Society and especially those who have read the Report of Water Supplies of Ilinois and the Pollution of its Streams, by Dr. John H. Rauch, with Appendix by Dr. John H. Long and L. E. Cooley, C. E., will be pleased to know that the State Board of Health will soon issue another report of this character, which will show the results of a thorough sanitary survey of the Illinois river and its tributaries, including chemical and bacteriological analyses of samples of water taken at regular intervals throughout their couses. The report will have special reference to the effect of sewage upon the Desplaines and Illinois rivers prior to and after the opening of the Chicago Sanitary Canal. Articles will be written by the Secretary, the Sanitary Engineer, Mr. J. A. Harman, of Peoria, and by the Chemist J. H. Long, Sc. D., who needs no introduction to the medical profession of Illinois.

Since July, 1899, the State Board of Health has made weekly analyses of water taken at various points from Bridgeport to Grafton, and the result is shown in the very elaborate tables which accompany Dr. Long's report. These investigations will

be continued throughout the summer and the results will be shown in the revised report to be published in the fall when the Board will be able to form a correct judgment of the effect of the change upon the Illinois river through the opening of the Sanitary Canal, and to state whether its sanitary condition is improved or not.

State Items.

Under "Correspondence" in the controversy on smallpox, erythema bulbosum as stated should read "'erythema bullosum."

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At a meeting of the board of directors of the Chicago Eye, Ear, Nose and Throat College, Dr. A. G. Wippern was elected vice-president and treasurer, and Dr. Wm. L. Ballenger was re-elected to the chair of otology, rhinology and laryngology.

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A trained nurse in DeKalb county has been sued for slander by a physician, who charges that she declared a patient of his died from an overdose of morphine.

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Dr. Bayard Holmes left the city March 21. He will attend the congress for the prevention of tuberculosis at Naples, Italy, in April.

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Dr. E. A. Foley, of the Northern Illinois Hospital for the Insane, Elgin, has been promoted to the vacancy caused by the resignation of Dr. Lucius Foote, second assistant physician.

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The Physicians' Club at Elgin held a social the evening of March 4. Dr. Ohls presided and the evening spent in enjoying music and the refreshments, which were served by the ladies.

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The engineering committee of the Chicago Drainage Canal Board has received a report on the examinations of Illinois River water, carried on in the interests of the Board. It is said that the results have been adverse to the St. Louis suit now pending in the supreme court. The report states: "The condition of the water at the mouth of the Illinois was almost normal with that of the general water supplies of the main tributaries of the Illinois river. The investigation so far shows clearly that there has been scarcely any pollution of water supplied to St. Louis at the intake."

Letters each with enclosure have been received from:

G. W. Whitfield, Chicago.
B. L. Riese, Chicago.
A. L. Brittin, Athens.
R. A. McClelland, Yorkville.
F. O. Lowe, Kewanee.
Helen Babb, Springfield.
Jos. Brayshaw, Berlin.
J. W. Redwine, Whitehall.
Jas. L. Lowrie, Lincoln.
L. L. Leeds, Lincoln.
M. S. Marcy, Peoria.
J. E. Owens, Chicago.
T. N. Livesay, Patoka.
Peter Schmitz, Leonore.
W. E. Schroeder, Chicago.
A. P. White, Danville.
F. J. Mittan, Colfax.
J. A. Patton, Chicago.
A. F. Wilhelmy, Decatur.
Walter Miles, Chandlerville.
J. R. Pennington, Chicago.
Denslow Lewis, Chicago.
Jas. S. Mason, Rantoul.
Kath Miller, Lincoln.
H. M. Leeds, Allendale.
G. E. Southwick, Beamington.
J. W. Hairgrove, Jacksonville.
John Bergeson, Serena.
G. G. Wilcox, Seneca.
S. E. Munson, Springfield.
Chas. Kerr, Springfield.
F. A. Nevill, Meredosia.
H. T. Patrick, Chicago.
S. L. Breckenridge, Riverside.
C. P. Stringfield, Chicago.
F. J. Parkhurst, Danvers.
E. H. Wheeler, Murphysboro.
T. J. Pitner, Jacksonville.
G. W. Fringer, Pana.

Marriages, Deaths, Change of Address

MARRIAGES.

Dr. Emanuel J. Senn, of Chicago, and Miss Alys Larousini, at New Orleans, La., April 24. 1900.

Dr. John Ernest Mayhew and Miss Theresa Wade of Chicago, April 18, 1900.

Dr. Fred F. Teal, of Omaha, Neb., and Miss Maud Merriam, daughter of Dr. and Mrs. Russell B. Merriam, of Chicago, April 19, 1900.

Dr. W. B. Pickrell and Miss Frances Taylor, daughter of Dr. and Mrs. I. H. Taylor, of Springfield, March 14, 1900.

Dr. G. J. Bergener, of La Salle, and Baroness Amelia Triebe von Triewalden, of Vienna, at Dresden, Germany, March 23, 1900.

DEATHS.

(Furnished by State Board of Health.)

Bigelow, Arthur W., Chicago, age 35.
Bacon, A. J., Gardena, Cal., March 30, age 60.
Bradley, Chas D., Chicago, April 7, age 49.
Harmon, Jos. W., Chicago, March 29, age 85.
Ingram, E. W., Golden Gate, April 5.
Jones, Emery C., Virden, March 21.
Plummer, S. C., Rock Island, April 30, age 79.
Smith, S. L., Chicago, Feb. 17, age 29.
Smith, Geo. A., Henton, March 30, age 50.
Spees, F. T., Tuscola, April 8, age 76.
Van Valzah, S. B., Chicago, in April, age 70.
Wilson, Geo. A., Peoria, April 6, age 59.
Wetherell, Geo. F., Chicago, March 20.
Wallick, Frederick F., Williamsfield, March 27.

CHANGES OF ADDRESS.

(Furnished by State Board of Health.)

CHANGES IN CHICAGO.

Blech, G. M., 1434 Michigan ave. to 103 State st.
Burbank, C. H., 4830 N. Clark st. to 538 Lunt ave.
Bergquest, Eda, 70 State st. to 1556 Milwaukee ave.
Crabtree, Geo. H., 623 E. 65th st. to 625 E. 25th st.
Dowdall, W. T., 7100 Chicago ave. to 3816 Rhodes ave.
Elliott, Chas. A., 4705 Indiana ave. to 6358 Minerva ave.
Fowler, A. M., 5225 to 4801 Ashland ave.
Hatfield, C. L., 3915 Calumet ave. to 3133 Parnell ave.
Harvey, Robt. H., 65 Randolph st. to 100 State st.
Mack, M. H., 690 W. Madison st to 3000 Indiana ave.
Morris, T. B., 685 W. Van Buren st. to Illinois Steel Company Hospital.
Pleth, Valdemar, 719 to 750 W. North ave.

CHANGES FROM CHICAGO.

Carver, S. C., to Winterset, Ia.
Foley, E. A., to Elgin.
Ross, David D., to Peoria.
Snyder, L. A., to Chicago Heights.
Sullivan, F. J., to Ohio, Ill.
Williams, E. E., to Kangley.

CHANGES TO CHICAGO.

Bettman, Boerne, London, England, to 2522 Michigan ave.
Burdick, Alfred S., West Hallock to 358 Dearborn st.
Elfeld, Edw. A., German Valley to 330 La Salle st.
Kanaval, Allen B., Sedgewick, Kan., to Cook County Hospital.
Walters, Hamlin J., to 6527 Kimbark ave.

CHANGES FROM ILLINOIS.

Auten, Frank E., Newman to Dayton, Ohio.
Evans, M. H. Jr., Spring Valley to Joplin, Mo.
Lamon, Chas. E., Fairmount to ———.
Nash, Wm. R., Fairmount to ———.
Peterson, Vern A., Somonauk to Arizona.
Paris, Wm. J. J., Elizabethtown to Marion, Ky.
Prince, E. M., Rushville to Astoria.
Reagin, C. G., DuQuoin to Elizabeth, Col.
Sheffield, D. A., Apple River to Elma, Ia.

CHANGES TO ILLINOIS.

Baily, G. O., to Armington.
Churchill, H. Roy, St. Louis, Mo., to Peoria.
Cohen, Morris S., to Grant Fork.
Cole, Vincent, to Rockford.
Fisk, Redford W., to Quincy.
Green, F. L., to Kangley.
Horwitz, Sandor, to Peoria.
Martin, E. W., to Morton.
McMillan, J. C., to New Berlin.
Robinson, Mary T., St. Louis, Mo., to Pawnee.
Rider, C. J., Ohio to Bushnell.
Sission, Chas E., Wisconsin to Elgin.
Schreifels, Leonard, St. Louis, Mo., to Granite.
Trainor, T. H., to Ransom.
Wright, C. M., to Blaine.
Wallace, Jeannette C., to Peoria.
White, John T., to Freeport.

CHANGES IN ILLINOIS.

Allen, Carlos A., Lowder to Virden.
Brown, Wilson, New Grand Chain to Metropolis City.
Bucknell, S. E., New Douglas to Alhambra.
Banks, J. H., Anchor to Atlanta.
Blair, E. J., Monmouth to Charleston.
Coone, Bathena, Peoria to Hanna City.
Enos, J. W., Alton to Jerseyville.
Ennis, Isaac B., Waldron to Martinton.
Garrison, A. Jessup, Broadlands to Long View.
Grassau, Andrew, Rock Island to Apple River.
Holson, Ralph R., Ivesdale to Altamont.
Hart, S. F., Ottawa to Ozark.
Hosier, J. W., Hollowayville to La Salle.
Hood, Wm. T., Peoria to Leonore.
Kemp, C. H., Colchester to Tiskilwa.
Leavens, D. C., Lee Center to Amboy.
Long, Harlan W., Newton to Yale.
McAlpine, Abram M., Champaign to Peoria.
May, Louis R., Camden to New Berlin.
McKenzie, R. E., Kappa to Gilman.
McGurty, P. H., Martinsville to Hume.
Pembroke, W. K., Bethalto to E St. Louis.
Porter, A. G., Jerseyville to Alton.
Rowe, Jesse, Monmouth to Abingdon.
Roberts, R. B., Downs to Plymouth.
Rideout, Wm. J., Atwood to Freeport.
Smith, D. G., Virginia to Elizabeth.
Seems, G. F., Basco to Adrian.
Tinsley, James M., Savoy to Philo.
Willis, W. H., Whitefield to Peoria.
Williams, H. O., Belknap to Galatia.
White, Howard E., Campus to Fairmount.

CALENDAR OF MEDICAL SOCIETIES.

City.	President.	Secretary.	Time and Place of Meeting.
Alton Medical Society	W. A. Haskell, Alton	P. W. Beckman, Alton	
Chicago Pediatric Society	A. C. Cotton, Chicago	F. S. Churchill, Chicago	1st Thursday of each month
Chicago Society of Internal Medicine	John A. Robison, Chicago	Ed. F. Wells, Chicago	Monthly
Chicago Surgical Society	John E. Owens, Chicago	A. W. Eisendrath, Chicago	1st Friday of every month Oct. to June
Chicago Laryngological Society	E. Fletcher Ingals, Chicago	T. Melville Hardie, Chicago	Quarterly in connection with Chi. Med. Soc.
Chicago Orthopedic Society	Frederic S. Coolidge, Chicago	John L. Porter, Chicago	Monthly, except July and August
Chicago Academy of Medicine	W. L. Baum, Chicago	J. G. Kiernan, Chicago	2d Friday of each month
Chicago Bohemian Medical Society	Chas. Stulik, Chicago	W. J. Dvorak, Chicago	1st Friday of each month
Chicago Medical Society	J. C. Hoag, Chicago	Arthur R. Edwards, Chicago	Every Wednesday evening
Chicago Pathological Society	Ludwig Hektoen, Chicago	George H. Weaver, Chicago	2nd Monday of each month
Chicago Gynecological Society	Thomas J. Watkins, Chicago	Wm. H. Rumpf, Chicago	3rd Friday of each month
Chicago Ophthalmological & Otologic Soc.	Lyman Ware, Chicago	C. P. Pinckard, Chicago	2nd Tuesday of each month
Chicago Neurological Society	Richard Dewey, Chicago	Sydney Kuh, Chicago	No regular meeting
Chicago Medical Examiners	Denslow Lewis, Chicago	Wm. L. Baum, Chicago	Quarterly
Demonstrator's Association of Chicago	H. A. Hadley, Chicago	M. L. Harris, Chicago	2nd Monday of each month
Decatur Medical Society	Wm. J. Chenoweth, Decatur	W. C. Wood, Decatur	Monthly
Jacksonville, Medical Club	C. P. Thompson, Jacksonville	H. C. Campbell, Jacksonville	Every two weeks
Medical Legal Society of Chicago	Jos. Matteson, Chicago	Wm. S. Baum, Chicago	1st Saturday September, March and June
North Chicago Medical Society	Carl Wagner, Chicago	J. N. Washington, Chicago	Monthly
Ottawa City Medical Society	J. C. Hatheway, Ottawa	Wm. A. Pike, Ottawa	Monthly
Peoria City Medical Society	O. J. Roskoton, Peoria	N. M. Sedgwick, Peoria	Monthly
Physician's Club of Chicago		Wm. H. Wilder, Chicago	Monthly
Scandinavian Medical Society of Chicago	Geo. A. Torrison, Chicago	Thos. Warloe, Chicago	3d Thursday of each month
South Chicago Medical Society	Chas. F. Swan, Chicago	John S. Davis, Chicago	1st and 3d Tuesday of each month
The Medical Women's Club of Chicago	Gertrude G. Wellington, Chicago	Jennie Trish Topinka, Chicago	1st Tuesday in each month
Twin City (Champaign and Urbana) Clinical Association	H. C. Howard, Champaign	Jas. H. Finch, Champaign	2d and 4th Wednesdays of each month
Urbana Society of Physicians and Surgeons	Chas. A. Nichols, Urbana	E. S. Smith, Urbana	1st Monday of each month

County.	President.	Secretary.	Time and Place of Meeting.
Adams County Medical Society	Frank E. Tull, Quincy	W. W. Williams, Quincy	Monthly, on 2nd Monday at Quincy
Bureau County Medical Society	S. W. Hopkins, Walnut	A. E. Owens, Princeton	2nd Thursday of Nov. and May
Bond County Medical Society	B. F. Coop, Greenville	C. C. Gordon, Greenville	Meets in September and April
Clay County Medical Society	M. M. Gladson, Hord	W. E. Burgett, Louisville	Quarterly at Louisville
Clinton County Medical Society	W. T. Gordon, Carlyle	M. Broening, Carlyle	May, Aug., Nov., and Feb., at Carlyle
Champaign County Medical Society	T. J. McKinney, Gifford	J. C. Dodds, Tolono	Monthly at Champaign
Crawford County Medical Society	W. H. Hoskinson, Trimble	John Weir, West Union	2d Thurs. in July, Sept., Nov., Jan. & May
DeWitt County Medical Society	D. W. Edmiston, Clinton	John A. Tyler, Clinton	2d Tuesday in Jan., April, July and Oct.
Douglas County Medical Society	B. T. McClain, Atwood	W. E. Rice, Tuscola	1st Thursday in Feb., May, Aug. and Nov.
Fulton County Medical Society	E. W. Regan, Canton	D. S. Ray, Cuba	
Hancock County Medical Society	Wm. Boaz, Carthage	R. L. Casburn, Carthage	1st Monday in May at Carthage
Jefferson County Medical Society	J. H. Mitchell, Mt. Vernon	A. A. Dearduff, Mt. Vernon	
Kankakee County Medical Society	Geo. H. Lee, Kankakee	J. H. Roy, Kankakee	
Lake County Medical Society	L. M. Bergen, Waukegan	A. C. Haven, Lake Forest	1st Thursday of each month
LaSalle County Medical Society	Wm. G. Putney, Serena	E. H. Butterfield, Ottawa	Annually, 3rd Tuesday in April
Macoupin County Medical Society	J. S. Collins, Carlinville	J. P. Matthews, Carlinville	3d Tues. in April and Oct. at Carlinville
McDonough County Medical Society	D. A. Blair	S. C. Stremmel	1st Tuesday Jan., April, July and Oct.
McLean County Medical Society	Chas. E. Chapin, Bloomington	F. C. Vandervort, Bloomington	1st Thursday of each month at Bloomington
Monroe County Medical Society	H. Ganter, Floraville	L. Adelsperger, Waterloo	In March and September at Waterloo
Massac County Medical Society	S. J. Rhodes, Metropolis	C. E. Trovillion, Metropolis	2nd Thursday, Metropolis
Morgan County Medical Society	W. C. Cole, Jacksonville	Edw. Bowe, Jacksonville	2d Tuesday of each month at Jacksonville

CALENDAR OF MEDICAL SOCIETIES—Continued.

County.	President.	Secretary.	Time and Place of Meeting.
Pike County Medical Society	L. J. Harvey, Griggsville	R. H. Main, Barry	Monthly
Ogle County Medical Society	G. M. McKenney, Oregon	H. A. Mix, Oregon	1st Wednesday in January and July
Physicians' Protective Assn. of Jackson Co.	W. W. Essick, Murphysboro	O. B. Ormsby, Murphysboro	2d and 4th Saturday of each month
Rock River Valley Medical Association	A. G. McBride, Sterling	A. L. Miller, Dixon	2d week in June and December
St. Clair County Medical Society	E. P. Raab, Belleville	J. P. Stack, E. St. Louis	
Schuyler County Medical Society	J. A. Harvey, Rushville	C. W. Ball, Rushville	
Saline County Medical Society	J. W. Tallman, Harrisburg	J. R. Baker, Harrisburg	1st Monday in each month
Sangamon County Medical Society	Geo. N. Kreider, Springfield	E. P. Bartlett, Springfield	Monthly, on 2d Monday at Springfield
Stephenson County Medical Society	J. B. Leitzell, Orangeville	J. F. Fair, Freeport	
Shelby County Medical Society	Wm. J. Eddy, Shelbyville	A. G. Mizell, Shelbyville	Annually
Tri-County Medical Society	M. S. Brown, Danville	Leroy Jones, Hoopeston	1st Tuesday in June and December
Vermilion County Medical Society	W. A. Cochran, Danville	E. E. Clark, Danville	2nd Friday evening at Danville
Will County Medical Society	G. M. Peairs, Joliet	Thos. J. Wagner, Joliet	2nd Tuesday of each month
Wabash County Medical Society	J. Schneck, Mt. Carmel	G. C. Kingsbury, Mt. Carmel	Quarterly
Winnebago County Medical Society	T. N. Miller, Rockford	J. H. Frost, Rockford	Annually
Warren County Medical Society	E. J. Blair, Monmouth	A. G. Patton, Monmouth	Semi-Annually
White County Medical Society	W. W. Apple, Carmi	W. A. Steele, Carmi	2d Thursday in Jan., April, July and Oct.
Williamson County Medical Society	W. H. Bentley, Marion	G. W. Evans, Marion	1st Monday of Jan., April, July and Oct.
Woodford County Medical Association	C. E. Davis, Peoria	Frank Stubblefield, El Paso	1st Tuesday in May

District.	President.	Secretary.	Time and Place of Meeting.
Aesculapian Society of the Wabash Valley.	Z. T. Baum, Paris	H. McKennan, Paris	Terre Haute, Ind., in May
Association Military Surgeons of Illinois	Col. Nicholas Senn, Chicago	Lt. Col. Chas. Adams, Chicago	Annually, Chicago or Springfield
Brainard District Medical Society	F. M. Coppell, Havana	Katherine Miller, Lincoln	4th Thursday of Jan., April, July and Oct.
District Medical Society of Central Illinois.	Moses Haynes, Bingham	J. N. Nelms, Taylorville	Last Tuesday in April and October
Fox River Valley Medical Association	C. L. Smith, Aurora	M. M. Robbins, Aurora	At Elgin in May and at Aurora in Nov.
Galva District Medical Society	W. A. Grove, Galva	C. W. Hall, Kewanee	Annually, 1st Tuesday in May at Galva
Iowa & Illinois Cent. District Medical Assn.	C. C. Carter, Rock Island	G. E. Decker, Davenport, Ia	Quarterly
Medical & Surgical Society of Western Ill.	H. W. Smith, Roodhouse	H. A. Chapin, Whitehall	May 4th at Carrollton
Military Tract Medical Association	E. J. Sutton, Canton	C. B. Horrell, Galesburg	At Kewanee
North Central Illinois Medical Association.	P. M. Burke, LaSalle	Geo. A. Dicus, Streator	Annually, 1st Tuesday in December
Southern Illinois Medical Association	J. O. DeCourcy, St. Louis	C. G. Rayhill, Belleville	Semi-annually